

UNTIL GERMANY SURRENDERS OUR BUSINESS IS TO FIGHT;
NOTHING ELSE COUNTS NOW.

Manufacturers RECORD

An Exponent of Americanism

ESTABLISHED 1882

BALTIMORE, APRIL 4, 1918

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THE TASK TO WHICH WE NOW DEDICATE OURSELVES

Germany has ceased to be a land of civilized human beings. It is merely a great fighting machine which, like all other machinery, is without conscience or morals.

Germany knows no law except the law of might. It knows no other reason for the existence of men and women and children than to serve the State as represented by its diabolical militaristic element.

Therefore, Germany slaughters in cold blood, with no more feeling or conscience than a piece of machinery would have in killing a man who was fed into its ruthless maw.

The machinery has no conscience, no moral force; but that does not lessen its terrific power for evil to the individual who runs contrary to its appointed plan for grinding or crushing or cutting, or for any other work for which its builder created it. This is the fighting machine which we now face.

One year ago we declared war upon Germany, though Germany had openly been making war upon us since the summer of 1914.

One year ago we undertook to do what we should have been aggressively doing since August, 1914. We planned for a great army, we promised the Allies a great aeroplane fleet and ships without number; but we are only now rounding into shape these things, which makes us almost criminally to blame for the fearful losses in the mighty struggle of the last ten days.

Had we done our duty as a nation and as individuals, Germany could never have reached its present mighty fighting strength.

Every man who fought preparedness, every pacifist who sold his soul to the devil of Germany's propaganda, has resting upon his head the fearful blood-guiltiness of the men who are dying that we and civilization may live. Through the ages the stain of blood cannot be washed out. It is there forever.

Our nation failed to be ready, failed to see its duty, because it preferred its ease. Let us, therefore, with our souls quickened by these truths, redouble, yes, quadruple, our energy in building a war machine which will outmatch Germany's in proportion as honor is better than dishonor, as morality is better than immorality, as civilization is higher than barbarism, and integrity of life better than murder and its rage.

That is our task, and to that issue we must address ourselves with every ounce of our strength of body and soul.

Let us begin the second year by promptly oversubscribing the Liberty Bonds and doing to the fullest what we have been promising to the Allies and to ourselves, and thus redeem our honor and save our souls and the soul of the nation.

BETHLEHEM STEEL COMPANY

IRON AND STEEL PRODUCTS

GENERAL OFFICES:

SOUTH BETHLEHEM, PA.

Vol. LXV
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MANUFACTURERS RECORD

DEVOTED TO THE UPBUILDING OF THE NATION THROUGH THE DEVELOPMENT OF
THE SOUTH AND SOUTHWEST AS THE NATION'S GREATEST MATERIAL ASSET

Trade-Name Registered in the U. S. Patent Office

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THE NATION'S PRAYER FOR DIVINE GUIDANCE.

We longed, O God, for peace. We tried to shut our ears to the call of duty. We prayed that this cup of sorrow and suffering might pass from us. We said "not Thy will but ours be done," trusting to be saved from the agony of a Gethsemane and the sacrifice of a Calvary, but we believe that in Thy wisdom Thou hast led us until we now face the agony of our Cross that civilization and liberty may be saved to mankind.

We have now heard Thy command, O God, to "go forward" and, like Thy people of old, we follow Thee. May the way be opened for us. May Thy love and power be as a pillar of fire by night and as a cloud by day to lead us on.

BUY LIBERTY FOR YOURSELF AND YOUR COUNTRY BY BUYING LIBERTY BONDS.

THE JUDAEAN BATTALION.

A HUNDRED and fifty young Jews left New York Thursday to fight for the freedom of the Holy Land. They will join other hundreds enlisted in Britain, who are already on their way to Palestine.—News Item.

Awaken, O Jerusalem,
Thou city of the king!
The Lord God of Israel
Has wrought a wondrous thing;
A byword and a mocking
Through centuries of shame,
He comes to raise thee from the dust
And build again thy name.

Jerusalem, Jerusalem,
Lift up thy head and see
The mother may forget her child,
But God remembers thee!

The swords of many nations
Have made of thee a prey,
The feet of many strangers
Have worn thy stones away;
But hearken, O Jerusalem,
And hear a joyful sound—
The tread of Jewish warriors
On their ancestral ground!

Arise and sing, Jerusalem,
Who art no longer dumb;
O citadel of David,
The sons of David come!

—MARY, in New York Sun.

"Let Us Locate, Eliminate and Exterminate Every Pro-German in This Country."—Bishop Henderson of Detroit.

AT the closing session of the New Jersey Methodist Episcopal Conference held at Atlantic City recently, Bishop Henderson of Detroit suggested a series of patriotic meetings throughout the churches of the land "to strengthen the morals of our people who have not yet awakened to the fact that we are in the war, or have any conception of what it means."

"If we weaken in this fight, we are licked now, and we deserve it."

"The month of May is to be a month of universal patriotic services and revival meetings of patriotism throughout the United States."

"Tell the people," said Bishop Henderson in continuing his address, "why we are in the war, and what the duty of each one is. It is a tragedy that the Christian churches have been so slow to realize the possibilities of this war. There is a demand for Christian leadership outside of the cantonments."

Bishop Henderson called attention to the many duties that church members have to perform in addition to the work of the chaplains and others at the cantonments, and he suggested that it is the duty of every one to get immediately in touch with the War Council should anybody of pro-German tendencies be found in his community. And then he added:

"Let us locate, eliminate and exterminate every pro-German in this country."

Bishop Henderson rightly stated the case. We have not seen it put better by anyone. It is worth repeating.

"Let us locate, eliminate and exterminate every pro-German in this country."

That is the teaching which should go forth throughout this land. Pro-Germanism is pro-Hellism. Pro-Germanism is direct co-operation with the forces that are murdering our men and will murder hundreds of thousands and perhaps millions before we are through with this task; and every pro-German thought, or word, or deed, put forth in this country is in direct co-operation with these murderers of our loved ones.

Bishop Henderson is also right in saying that the failure of the Christian churches of this land to realize the possibilities of this war is in itself a great tragedy. That has been one of the most serious phases of the war. Standing before the most fearful immorality, the most awful crimes which have ever darkened the pages of human history, a large proportion of the ministers and of the religious papers of the country held their peace and said nothing. The time has come when, in every church in our land, there should be patriotic services to awaken the country. Many churches need to be more thoroughly aroused to the real meaning and the magnitude of this war, for among some of them there is still too much apathy on the subject, due to a lack of knowledge of what the war is and what it means.

For three years we have sought to urge personally, as well as through the MANUFACTURERS RECORD, upon as many friends in the ministry as possible this supreme task of the world. One of these friends, the Rev. John Jeter Hurt of Wilmington, N. C., is a conspicuous preacher upon the great war issues, and his sermons on the subject have had a great effect in Wilmington. A question was re-

cently raised by a religious paper as to the wisdom of hanging the American flag in churches, on the ground that this was a union of Church and State. Dr. Hurt, in a letter published in the Biblical Recorder, strongly antagonized that position, and the editor of the MANUFACTURERS RECORD in a letter to him discussed the question from a viewpoint which may possibly be of interest to our readers. This letter, therefore, is published merely to press upon the attention of ministers, many of whom are readers of the MANUFACTURERS RECORD, and upon church members generally this view of the duty of churches and of ministers in this great crisis.

The letter is as follows:

Daytona, Fla., February 19, 1918.

Rev. John Jeter Hurt,
First Baptist Church,
Wilmington, N. C.

My Dear Dr. Hurt:

I have read with interest your letter in the Biblical Recorder of February 13. I am glad that you have stated the case so clearly.

While I go to the extreme in my idea of separation of Church and State, I regard this war as so pre-eminent connected with the very existence of our churches and with Christianity itself that I feel that the supreme duty of every church organization is to strive to awaken a sense of consecration on the part of its own members and the people generally to the task into which we have been called. Surely this is a war into which we have been called by God Himself, if ever there was a war on earth into which men were called by God. This is a war forced upon us, and upon all civilization, not alone to save the innocent women and prattling babes from brutish destruction, not alone to save Democracy (for the world could exist without Democracy), but to save civilization and Christianity from being overthrown by the Powers of Darkness, by barbarism and atheism.

If to this statement the reply should be made that it is not conceivable that Christianity should be overthrown by the Powers of Darkness, it might be said that for the last 1900 years Satan has had a tremendous influence for evil, not yet overthrown by Christ Himself. Moreover, in individual salvation God works through human agencies. Surely, then, God must work through human agencies when Christianity is being imperiled by agnosticism and atheism in the most barbarous war that the world has ever known, and God must call human agencies into the contest to fight His battle, for it is through human agencies that God works.

It is, of course, conceivable that God could accomplish His purpose without the intervention of man, but we only know that He has not chosen to do so.

As this nation is, I believe, therefore, called by God Himself to this task upon which the future of Christianity depends, upon which rests the question of our salvation as a nation, or our damnation by Germany's domination, the preaching of the Gospel to the individual soul becomes almost of trifling importance as compared with the awakening of the nation, that as a country salvation may be ours.

It would be useless to hope to preach the Gospel of Christ in all its purity to individual souls if Christianity had been overthrown by the destructive, barbarian, atheistic, agnostic, Devil-inspired activities of the Germans.

Many of our people do not realize the task that is before us, nor do they at all comprehend the meaning of this war; they think it as something far away, something which we might have escaped, something which does not directly involve our existence as individuals and as a nation, but just as surely as there is a reality of the power of Evil, just so surely as Satan carries on his work in this world, just so surely do we face the supreme test, the most supreme test of all the ages, as to whether the power of Evil, expressed through Germany, is to dominate the world, this nation included, or not.

I believe, therefore, that every church should hang up at the side of its pulpit a roll of its members who are in the service of the nation. I am glad to say that

the First Baptist Church of Baltimore has a beautiful mahogany tablet close by the side of the pulpit. Over the top of this tablet are the words,

"ROLL OF HONOR

Of the Members of This Church and Congregation Who Serve God and Humanity in the Service of the United States."

Under this heading are the names of the men who are in the army and navy, and of one good woman who, early in the struggle, enlisted as a trained nurse in the Red Cross work in France. Back of the pulpit an American flag floats, and on Sunday night there will be a special patriotic service. A letter which I have just received from the pastor may, perchance, interest you. In the course of his letter he says:

"We are arranging for special services in all of the Baptist churches in Baltimore this Sunday. The day is to be known as Roger Williams day, and we are going to emphasize the fact that it was through his efforts that religious liberty and the separation of Church and State was first advocated in America, and that the splendid work that he did had a wholesome effect upon the framers of the Constitution of the United States, and that now we are to do our best in advancing those great principles that our forefathers bled and died for.

"I am also arranging a special patriotic service for Sunday the 24th, at which time the names of all the men of our church represented in the service of the Government, both in the navy and the army, will be read and special prayers made for them. Personally, I am going to re-emphasize the duties that have fallen upon those of us who remain at home. The situation at the present seems to be very critical to me. I am sure that some of our folks have not gotten their eyes open yet, and it seems to be impossible for them to fully realize just what we are up against. I am sure that our great God will give us the victory in the end, but we must have several different kinds of victory. There must be a victory in the individual life, and in the church. So the sooner the people come to realize their full duty, the sooner this conflict will be over. I am praying that God will hasten the day."

This is the spirit in which the old First Baptist Church of Baltimore is regarding the situation, and in writing to the pastor, Mr. Bowers, today, I have emphasized the reasons why it is of supreme importance that every church in this land should seek to arouse its own members and the people in its community to the meaning of the war, and to call them to the absolute consecration of all that they are, and all that they have, to the service of God and humanity in this war.

I do not believe that God ever called the children of Israel into any war more directly than he has called the people of this country into this war. I do not believe that there was ever a war in which men were engaged which meant so much for God and humanity as this war. I cannot, therefore, understand the thought of some people that the churches of the country must not enter into an effort to awaken our people to this great struggle, and to hold up the nation's flag as the emblem of God's call to humanity, not merely to honor that flag, but to maintain that civil and religious liberty which that flag represents in the sight of God and of all the world.

I am not a pessimist, and never have been, but I trust that I am not so narrow-visioned and so unwilling to see the truth that I cannot face the reality of the danger before us. I am an optimist as to this war because I am an optimist in my belief that God Almighty reigns, and that He will give us victory; but if I did not have this faith in the overruling Providence of God, the situation before us is so desperately dangerous that my optimism would become pessimism. I do not believe in the optimism based on a foundation of sand; I do not believe in the optimism of the ostrich, which hides its head in the sand and fails to see danger; but I do believe in the optimism of the man filled with physical and moral courage, who sees the danger and meets it by being prepared for it, and who fights the battle of life with the realization that it is a battle, and not simply an easy, pleasant journey.

As we sing the old hymn, that we would not be carried to Heaven on flowery beds of ease, but would fight if we would win, we must constantly realize that in this gigantic struggle in which we are engaged it will not be any flowery beds of ease upon which we will have to rest, but that we shall need every ounce of our physical, moral, spiritual and financial strength, fused into a mighty fighting machine, directed by men who look to Almighty God for guidance, and then the nation, concentrating and consecrating its all upon the task, shall win, but only because God is on our side.

Go on, therefore, with your great campaign to arouse the patriotism and the religious zeal of your people, and carry your message into every church wherever you can tell it, for the coming 12 months will be the crucial time in all human history, and it behooves us, forgetful of ourselves and our own comfort or ease, to do all that is in our power to arouse the nation, and to help build a mighty fighting machine, which is so supremely needed.

Sincerely yours,

RICHARD H. EDMONDS.

RELIGIOUS ORGANIZATIONS SHOULD SEND COMMITTEES TO EUROPE TO STUDY THE WAR SITUATION.

SOME months ago Rev. Hugh Birkhead, a distinguished minister of Baltimore, returning from a few months' study of the situation in England, France and Belgium, made an address in which he suggested that a thousand American ministers should go to Europe and for themselves see the actual conditions, and then come home and tell the people of this country what they had themselves learned. In no other way can the heart of America be so deeply touched and the religious enthusiasm of the country awakened as by the message which comes direct from one who himself has been on the battle front.

For this reason the MANUFACTURERS RECORD would suggest that all of the religious organizations of the country—Baptists, Methodists, Presbyterians, Episcopalians and others—should at their next annual meeting authorize the appointment of committees of three to five or more of the foremost men in these denominations to be sent to Europe for the express purpose of making a careful study of all the great questions at issue and of learning for themselves what has been taking place at the battle front and in the trenches for the last three and a half years. If each denomination would appoint to this great task a few of its most distinguished men, they could come home and carry the message of the war and its meaning directly and indirectly into every church in the country.

It is a great opportunity for the churches to do that which for three years they failed to do. It is a great opportunity for all denominations to throw themselves whole-souledly into a study of the conditions in Europe, and thus seek to quicken the patriotism and the religious zeal of their members. There is no other way in which this can be done to such advantage as by personal investigation by leading representatives of each denomination.

We would therefore take the liberty of urging the suggestion as strongly as possible upon all of the religious organizations of the country that they appoint such committees and provide them with the funds necessary for the trip, and that in selecting men for this work they secure men of the very highest ability whose word would command the immediate attention of the country. These representatives of the various denominations could, through their fellow-workers in Europe, secure the opportunity for a personal study of all that is being done by England, and France, and Belgium, and Italy, and of the heroic struggle which they have made to save civilization from destruction. They could also make a study of what our own men are doing and what they are saying about the great war.

Not until America has in some such way as this been stirred to the inmost depth of its soul will all of its people realize the magnitude and the meaning of this war.

SOCIALISTIC DANGERS WE FACE.

WARNINGS are coming from all parts of the country and from men of all classes in regard to the danger of the socialistic agitation which is spreading through this country, and which has been largely responsible for the downfall of Russia.

A prominent business man, writing from Florida, says:

As I read of the actions of the trades-unions and the mechanics in general I fear that Germany has gained great influence among them and that shipbuilding will be greatly retarded if not absolutely stopped. The Germans have two great levers to work with, one being the

natural cupidity of the laboring man and the other the desire for the limelight by the ignorant labor leader. Several of these worthless fellows have become almost of national importance since the war began, and that makes many of the same kind crazy for notoriety.

By getting practical control of about 2,000,000 of the factory workers in Russia the Germans have been able to turn the revolution to the advantage of themselves and will probably practically enslave the 150,000,000 farmers.

The conditions here are somewhat the same, the greatest unrest being among the factory workers, who number practically the same as in Russia. We have about 16,000,000 voters among the farmers. Will the 16,000,000 allow the 2,000,000 to hand them and their wives and daughters over to the tender mercies of the Hun?

The farmers must be waked up. There are among them perhaps 5,000,000 young men who are really good mechanics, having learned by practical experience with modern farm machinery and with automobiles. Many farmers take their autos apart and fully understand them. Now, we could use this 5,000,000 of good American patriots to build the ships if we could provide labor for the farms that would be reasonable in price and could be directed by the older farmers. The way to do this is to allow the entrance for the term of the war of the Chinese and of the Bahamians and Portuguese, without regard to the tests now in force.

The suggestions made by this reader must be given careful thought, for he has clearly outlined a situation which is much in evidence. The pro-German activity is in evidence among labor interests, and in every other way where it can make headway. It is this same kind of activity which has brought about the destruction of Russia and possibly the complete enslavement of that great country. We must awaken to the seriousness of the situation. The entire farming interests of the country must be aroused to the meaning of this war, and possibly, as our correspondent suggests, many men from farm life might be drawn into shipbuilding and their places taken by the Chinese and Portuguese. Certainly the time has come to give serious heed to the necessity of increased farm labor through the bringing in of Chinese.

From a retired business man, for many years head of a great railroad corporation, one who was in the Confederate service and who since the Civil War has been an active factor in large business operations of many kinds, comes a letter, in the course of which he says:

In regard to the present war situation, it looks to me as more serious, if possible, each day, and I fear we are in for a long and trying time, and I feel those in charge of our country are not equal to the occasion, nor have they the firmness to do what is necessary to meet the labor or spy conditions, and unless these conditions are met now with a firm hand, I do not see the "out" of it, but only disaster.

Socialism is rampant, it seems, everywhere, and we know that it means disaster, and always has, as history shows, and "history repeats itself" always.

SPREAD THE FACTS EVERYWHERE.

If your soul is stirred by the awful realities of Germany's barbarism as published from week to week in the Manufacturers Record, pass your copy on to others that those who are not subscribers may learn the fearful realities against which our nation is fighting. Let no single copy be wasted. Pass every copy on to some one else and urge them to send it on to others, that in every home the story as given in every issue of what this war means to every man, woman and child in this and in every other land may be fully understood. Not until then will our nation awake. You can help in this way to win the war.

ONE WAY IN WHICH ALMOST LIMITLESS GOOD MIGHT BE ACCOMPLISHED IN AROUSING AMERICA.

The White House,

Washington, D. C., March 26.

My Dear Mr. Edmonds:

I have your telegram of March 24. I need not tell you that it would give me great pleasure and be a stimulation to me to make such a tour as you suggest in connection with the loan campaign, but, unhappily, it is literally out of the question. I cannot venture so far away from the daily tasks which can be performed only here.

Cordially and sincerely yours,

WOODROW WILSON.

The foregoing letter from President Wilson is in reply to a telegram from the Editor of MANUFACTURERS RECORD, to which reference was made last week. This telegram was as follows:

Daytona, Fla., March 24.

Hon. Woodrow Wilson,

President of the United States,

Washington, D. C.:

In this great world crisis, which will demand for our own salvation from German damnation the utmost stretch of our power, the consecration and concentration of every ounce of our moral, physical and financial strength, may I not presume to suggest that if you can see your way clear to make a speaking campaign, covering a week or two, from the Atlantic coast and the South to the West and over to the Pacific coast, if possible, your voice would be able as that of no other living man to awaken into a living, burning flame the latent patriotism of those who have not yet quite realized the meaning of this world tragedy.

If it might be possible for you to undertake such a trip as this, repeating and reiterating, at every point where an address might be made, the great issues of the hour and calling the nation to consecration to war, I believe that the Liberty Loan would be quickly oversubscribed and that the nation would be so aroused that ship construction and coal production and food output and food conservation would be pressed to the utmost limit of the nation's power.

I am not unmindful of the tremendous burden which rests upon you every moment of the day, but as I am in touch with people from all parts of the United States, I know that such a speaking campaign would awaken the utmost power of our patriotism more quickly than it can be done in any other way. It is quite possible that the obligations which rest upon you in Washington may make this impossible, but in making the suggestion I would assure you that if feasible such a campaign would be of priceless value to this country and to civilization.

As the people of America realize the responsibility resting upon you in this hour of the world's supremest crisis I am sure that every man and woman who believes in prayer is asking God's guidance and God's wisdom in directing you through this great emergency.

RICHARD H. EDMONDS,

Editor Manufacturers Record.

We can fully appreciate the tremendous pressure upon President Wilson, which makes it well-nigh impossible for him to get away for a moment from his exacting duties in Washington, but we feel that if he could, at two or three leading points, even if not at a larger number of places, make soul-stirring war addresses, calling this nation definitely to the utmost consecration of its mental and moral and physical and financial forces to the great task ahead of us, it would be of incalculable value. And these addresses should, we believe, be put in attractive pamphlet form, carrying President Wilson's picture and autograph, with a brief foreword or introductory from him, and this pamphlet be put in the hand of every man and woman in America.

Millions of people would give greater attention to a pamphlet of this kind than they would to the same matter printed in the newspapers.

In millions of homes a pamphlet article such as this, with President Wilson's picture and autograph, would be treasured as of direct personal interest and would be read with care and attention by many millions who would give but a cursory reading to the newspaper reports of these speeches. This is not because the newspaper is not of priceless value in making known the facts to the people, but because a pamphlet such as we have suggested, going direct from the White House to every man and woman in America, would seem to have a personal touch with the President and bring to millions of readers in millions of homes a feeling that the

President had appealed directly to them individually. We trust that this suggestion may not seem amiss and that it may be possible for it to be carried out in the very near future.

We have known for some time that President Wilson would probably accept the invitation to deliver an address at Baltimore on April 6 as the opening gun in the campaign for the Liberty Loan, but we wish it might be possible for him to go beyond Baltimore and deliver addresses on the same subject in many other places.

If the Manufacturers Record may presume to make a suggestion to President Wilson, it would be that this Baltimore speech be a definite and distinct call to the nation to war. Here and there is heard the talk of peace or of a short war or of a compromise or rumor that we will not need a big army. These reports are doubtless spread by pro-Germans, but they tremendously lessen the concentration of the nation's thought upon making war.

If President Wilson will hit out straight from the shoulder and say "to the last ounce of its physical and financial strength this nation will stand by the Allies until Germany is beaten to its knees and unconditionally surrenders, it matters not whether that be a year or ten years," and will call the nation to prepare for a struggle on that basis, his speech will be of infinite value to this country and to civilization.

METROPOLITAN,

432 Fourth Avenue, New York.

Office of

Theodore Roosevelt.

March 26, 1918.

My Dear Sir—I wish with all my heart to thank you and congratulate you for the admirable CREED, teaching the duty of this nation at this time in the great war, which you put on the outside of the cover of your issue of February 28.

Faithfully yours,

THEODORE ROOSEVELT.

Editor Manufacturers Record,
Baltimore, Md.

SAVE WHEAT, AND SAVE IT IMMEDIATELY.

AFTER a statement of the case relating to the shortage of wheat and the need of feeding the Allies by Mr. Hoover, seven hundred hotel men, including the managers of many of the foremost hotels in America, pledged themselves to entirely abolish the use of wheat and wheat products in these hotels.

This pledge did not come too soon, but it should apply not only to the hotels of the country and to the boarding-houses, but to as large extent as possible to the private families.

Among the greatest offenders in food wastage are the expensive boarding-houses. From many directions the MANUFACTURERS RECORD hears that boarding houses of this kind have made little or no change whatever in their menus.

There is a desperate shortage of wheat. This shortage should have been faced many months ago. It is almost too late to accomplish much now, but to the utmost extent of the saving power of the nation wheat should be conserved that the Allies may be fed.

BUY LIBERTY FOR YOURSELF AND
YOUR COUNTRY BY BUYING
LIBERTY BONDS.

THE SOUTH AS A FOOD PRODUCER TO THE NATION.

Daytona, Fla., March 21, 1918.

Hon. William G. McAdoo,

Director of Railroads,

Washington, D. C.:

Florida, which is this year producing about 50,000 carloads of foodstuffs for shipment to the North and West, and other Southern States, which are producing in the aggregate 200,000 carloads or more of foodstuffs for Northern and Western consumption, can enormously and continuously increase the output of potatoes and cabbage and onions and other food products absolutely essential to the feeding of the people of the North and West, provided definite assurance can be given by you that adequate transportation will be furnished promptly as needed and the shipments expeditiously handled in order to avoid the heavy losses which have been incurred by lack of transportation and delay in shipment.

The South can save the nation's food situation to a far greater extent than has been generally realized, and this is indicated in the simple fact of 50,000 carloads of foodstuffs available from this one State for shipment North and West this season, which is the amount estimated by conservative authorities.

The South last year produced over 200,000 carloads of foodstuffs for shipment to the North and West, in addition to about \$400,000,000 worth of such products as cottonseed oil, an essential food fat, and kindred products. But the North and West will seriously suffer for the lack of these foodstuffs and their production in the South will be seriously hampered unless there can be given assurance of adequate transportation.

If you can wire me that this vital transportation will be made available, it will be possible to stimulate even greater activity in increased food production for shipment to other sections which do not produce their own foodstuffs, and in this way the South can be the greatest factor in helping to win the war by providing foodstuffs, which would make it feasible for us to help maintain the Allies.

I would urgently press upon your attention the importance of this suggestion and ask a reply by wire from you if you can give me assurance that prompt and adequate transportation will be provided to any extent that the South will supply food for the rest of the nation.

RICHARD H. EDMONDS,

Editor Manufacturers Record.

The foregoing telegram to Mr. McAdoo merely reiterates the statements which the MANUFACTURERS RECORD has been over and over again publishing, that the South can enormously increase its production of foodstuffs to help save the North and the West from starvation. The South already provides more than 200,000 carloads of vegetables, such as potatoes, cabbage, onions and fruits, upon which the North and West so largely depend. But there has been, as we have recently stated, such delay and congestion in the traffic of handling these perishable foodstuffs from the South to the North and West that producers were in many cases made to suffer serious losses, and thus the rapid expansion of this food production was endangered.

No problem before the country is more essential than that of providing rapid transportation for these perishable foodstuffs, for it is freight which cannot wait, and it is food without which there would be food riots in the great cities of the North and West, for they look to the South for this vast supply.

In the belief, therefore, that a positive assurance from Secretary McAdoo that an abundant supply of transportation would be provided for all the food which the South could ship into the North and West to meet the needs of these sections, and thus make available larger supplies of wheat and meats for our own army in Europe and for the Allies, would result in a greatly increased production, the fore-

going telegram was sent. Through recent correspondence with Mr. McAdoo and Regional Director Markham the problems which so seriously hampered the shipment of Florida vegetables to Northern markets seem to have been settled, and an arrangement has been effected between the railroads, acting through Mr. Markham, and the Florida growers, by which shipments are to be expedited and put into the Eastern markets at a much more rapid schedule than that which has recently prevailed.

There has been a very emphatic contradiction between the railroads and the food producers. The railroads insist that there has been no shortage of transportation for Florida foodstuffs. The growers and the commercial organizations of the State, on the contrary, emphatically state that there has been a great shortage of transportation.

The issue is a clear-cut one, which needs a thorough and comprehensive investigation, for if the railroads are correct, then the leading commercial organizations of Florida and hundreds of growers have misstated the case. If these commercial organizations and the growers are correct, then the railroad authorities have been badly misinformed. The issue is one of such importance that it deserves the most thorough investigation.

Secretary McAdoo, in his reply to the telegram, wired:

"Am advised that conference between Regional Director Atlanta and Florida growers failed to develop any loss by reason of car shortage, and plans were made at this conference for satisfactory service. You may rely upon Railroad Administration making every effort to adequately care for Florida perishable traffic."

Notwithstanding the claims of the railroads that there was no shortage in transportation, a radical revision was made by Mr. Markham and the railroads in the handling of this freight in lessening the heavy load on the locomotives, and thus enabling them to make better time.

The matter has been so completely ventilated that it should result in the development of a system adequate to the handling of all of the perishable freight which the South is able to produce for the benefit of the North and West without any possibility of the repetition of the conditions which have existed in Florida this winter.

While taking up this shipment of foodstuffs from the South with Mr. McAdoo, the MANUFACTURERS RECORD also brought it to the attention of the Food Administration, and Mr. Herbert Hoover, in a letter, writes:

"Doubtless you have heard direct from Mr. McAdoo advising you of the attention given to this matter of schedules for Florida perishables. The Food Administration received advices from the Federal Food Administration for Florida, and also from various shippers, that schedules were unsatisfactory. Upon taking up the matter with the Railroad Administration they have promptly arranged to afford the necessary relief, and the arrangements have been made to give practically the same expedited schedule on this Florida traffic as has been given in previous years. Both the Food Administration and the Railroad Administration are fully alive to the importance of this movement from every standpoint, and you may rest assured nothing will be left undone to arrange the necessary service."

In this letter Mr. Hoover clearly states that the railroad service was unsatisfactory and that new schedules have been adopted by the Railroad Administration for the express purpose of giving the relief needed. This is quite contrary to the claims

made in a letter from Mr. Markham, in which the railroads specifically deny that there has been any shortage of transportation. Mr. Markham's letter on the subject is as follows:

Atlanta, Ga., March 23.

Mr. Richard H. Edmonds,
Editor Manufacturers Record,
Daytona, Fla.:

Dear Sir—In further answer to your telegram of yesterday, the following reports since received confirm our previous advices to you:

F. E. C. reports large quantities of cabbage have rotted in fields along their line, but that this has been due to market conditions and not to car shortage.

A. C. L. reports that on their line small quantities of cabbage and lettuce have gone to seed on account of weather conditions, and small amount of celery has been left in fields on account of blackheart; no losses on account of car shortage.

Seaboard reports cabbage and lettuce left in fields on account of seeding, and celery on account of blackheart and market conditions. No car shortage.

One of the Sanford growers in this office this week admitted he was plowing under celery because of its condition and because of low market.

Agents of the Fruit Growers' Express, whose agents are in close touch with the entire Florida vegetable situation, report considerable quantities of cabbage, lettuce and celery have been left in fields, but in no case on account of car shortage; that unusual weather conditions in Florida this season have resulted in hasty maturity and seeding of some crops; that other vegetables have been affected by blackheart and other troubles resulting from weather conditions; that low markets have also contributed to failure of growers to ship full crops; that there has been no shortage of cars for purposes of refrigeration, but that in a few instances it has been necessary to substitute railroad ventilated cars when shippers have asked for refrigerator cars for use as ventilated cars.

The writer is very familiar with the Florida vegetable situation, and he has frequently seen entire fields of lettuce go to seed without the shipment of a single head.

Yours truly,

C. H. MARKHAM,
Regional Director.

The statements made in these railroad reports to Mr. Markham are directly contrary to the statements of the growers and to the information received direct by Mr. Herbert Hoover. Who is right?

SAVE THE AMERICAN FLAG FROM SUCH DESECRATION.

UNDER the heading "Here's the Remedy" the Times-Union of Jacksonville prints the following dispatch:

Altus, Okla., March 20.—Two alleged pro-Germans, O. F. Westbrook and Henry Huffman, residing near here, at daybreak today were dragged from their beds by armed and masked men and compelled to kiss the American flag repeatedly, lashed with whips, coated with tar and feathers and ordered to leave the vicinity.

Today every road intersection in Jackson county had been posted with notices to "pro-Germans and slackers" to leave the country or suffer treatment similar to that dealt to the two men.

It is claimed that Westbrook and Huffman, both of German descent, have openly cursed the American Government.

The remedy is an illegal one viewed from the standpoint of the rigid enforcement of law, for to a certain extent it is the mob spirit taking the law into its hand, but since the Government has failed to suppress pro-Germanism it is certain that the people of this country will do the suppressing act with even greater vengeance than those who in Oklahoma compelled two pro-Germans to kiss the American flag and then tarred and feathered them. It is an outrageous shame, however, that these men should have been made to kiss the flag of this country, for that is an insult to the flag. It is a profanation of this nation's emblem of civilization, the starry banner, to permit it to be kissed by pro-Germans, or pro-Hellites, who though living here are co-workers with Germany in all its vile atrocities. No flag should be thus desecrated. The American flag is too sacred and too holy to be touched by such vile lips. Tar and feather these people and drive them from the community if you will, unless the Government does such work as will make this unnecessary, but save the American flag from desecration.

WHICH DO YOU CHOOSE—AMERICAN WOMEN OR CHINESE MEN AS FARM LABORERS?

THE United States Food Administration is sending out a picture showing three French women hitched side by side to a plow, taking the place of the horses or oxen which in former times did this work. In connection with this photograph is a statement from Dr. Alonzo Taylor, who says that his words are not powerful enough to do even scanty justice to the most heroic figures of the modern world and of the ages past—the women of France. Practically all men in France are engaged in the army or in the transportation or manufacture of munitions, leaving the agriculture of the country almost entirely to the women. And Dr. Taylor adds:

Not only this, but they have stepped into the place of work animals. You can go into any section of France today and see women of magnificent, noble womanhood hitched to the plow and cultivating the soil. All of the agriculture rests upon their shoulders. Uncomplaining, with high devotion, in an attitude which amounts almost to religious exaltation, the woman of France bears the burden. * * * The women of France must be enabled to hold up the morale of the French soldier until next spring. The morale of the house decides the morale of the soldier in the fighting line. We can do this by giving them the greatest possible freedom in their food supply, and of this wheat is the chief factor.

The scene depicted by the photograph of these three women dragging a plow, bending beneath the struggle to do the work of livestock, is piteous, but heroic. It brings to mind the fact that many officials who have been carefully studying the situation in this country are taking the ground that American women must do a great deal of the farm work that is to be done during the continuance of this war. We cannot contemplate the possibility of American women entering into this hard struggle of producing the foodstuffs of the nation without realizing that while as a last heroic measure the time may come when it will be necessary, we should do all in our power to make it impossible to reach that stage.

Would it not be infinitely better to bring into this country some of the millions and millions of Chinese farmers and laborers who could be secured, and scatter them over the farms of America, that through their work the supply of foodstuffs might be increased without the burden of doing this falling upon the women of the land? Is it conceivable that there can be any class of men worthy of the name of men, whether they be union laborers in machine shops or non-union laborers on the farms or elsewhere, who would rather see the women of the country bend their backs to this burden than to see the burden lifted or prevented from falling upon them by having the work done by Chinese laborers who are available?

If we are to call upon China for help, there must be created immediately a widespread interest in the subject, and the men and the women of this country must study the situation and decide which they prefer.

HIGGINSON TO BLAME.

HENRY M. HIGGINSON of Boston, who has so vigorously backed up Dr. Karl Muck and denounced those who opposed Muck, now finds that neither his wealth nor position could keep his protegee out of jail.

Mr. Higginson is more to blame than Muck. He has upheld Muck the German when patriotism should have shown him that this is no time to parley with anything German. Mr. Higginson has not honored his city nor his country.

It is time for such work as Mr. Higginson did in upholding Muck to receive the severest condemnation of all right-thinking, honest-hearted Americans. Even if Muck were acquitted, this would not lessen the folly of Mr. Higginson's work.

BUY LIBERTY FOR YOURSELF AND YOUR COUNTRY BY BUYING LIBERTY BONDS.

SEED CORN DEFICIENCY IN THE WEST EMPHASIZES NEED OF INCREASED CORN PRODUCTION IN THE SOUTH.

THE greatest disaster to the corn crop, by reason of an early frost last fall, recorded for many years in the history of the corn trade, if not the greatest ever known, has produced an acute situation in the corn supply which demands the utmost possible corn production by the South.

While the nation was boasting of having raised a record crop of over 3,100,000,000 bushels of corn, it turns out, as recently stated by the MANUFACTURERS RECORD, that 40 per cent. of the entire crop—and this damage was almost wholly in the West—was so injured by early frost as to be unmerchantable and cannot be used except for immediate feeding of livestock.

The merchantable crop as reported by the Department of Agriculture is only 1,900,000,000 bushels, or 33,000,000 bushels below the average merchantable crop of the five-year period from 1910 to 1914.

This is a disaster of tremendous moment.

But more than the actual loss in merchantable corn is the fact that this condition has brought about a great deficiency in seed corn. The scarcity of seed corn in the West is more serious than ever before. Indeed, the department reports that the deficiency of suitable seed corn, by reason of early frosts and freezes and extremely low winter temperature, has brought about a condition unprecedented in degree and in extent during recent years, and sufficiently serious to justify all the efforts that are being made, and can still be made, by the Federal Government and State agencies, communities, firms and individuals to secure an adequate supply of seed which will germinate this year.

The peculiar difficulty of the situation is that communities short on seed corn cannot supply their deficiencies as in former years by ordering good seed from neighboring States, since this deficiency extends over a large part of the West. The seriousness of this condition is indicated in North Dakota, for instance, where there is a deficiency of over 85 per cent. in good seed, and the department reports that no corn whatever matured in that State last year. In States which had a surplus of good seed corn, such as the Central Western States of Ohio, Indiana, Illinois and Iowa, and other great corn-growing States, there is this year a deficiency running all the way from 27 per cent. in Kansas to 33 per cent. in Iowa, 71 per cent. in Michigan, up to 55 per cent. in North Dakota.

Without good seed it will be impossible to produce a good crop, and we therefore face a situation that an abnormally small crop last year, measured by its feeding value, will be followed by another short crop this year unless extraordinary precautions are taken to find good seed, and unless the South, which did not suffer from this early frost and which has no shortage in good seed, measures up fully to its duty. The South must increase its corn production not merely for its own needs, but to save the nation and to save civilization.

The country has never faced so serious a situation in corn. It is as acute in many respects as the wheat condition, and the utmost energy of the people must be put forth to bring about a great increase in corn acreages throughout the South, where an ample supply of good seed is available. Quick and aggressive work is needed. Indeed, the situation is so serious that the West may this year not produce enough corn for its actual needs, and the South must not only more than meet its own needs, but it

must have corn for shipment to the West and North and to the Allies.

Every business man, every railroad official, every State official in the South should recognize this situation as one of the greatest importance, demanding the utmost stretch of the energy of the South in planting for a great corn crop. If the South does not do this it will make a mistake, the seriousness of which it is impossible to exaggerate. On every small plot of ground which can be made available everywhere in the South corn should be planted, and not an hour is to be lost in pressing this upon the attention of the people of this section.

When the next Liberty Bond Loan is issued, on the anniversary of our entrance into the war, it should be instantaneously oversubscribed. Do not wait until the last moment to subscribe. Be ready on the opening day.

DRASTIC FLOUR AND WHEAT REGULATIONS NEEDED.

THE Food Administration is wisely commandeering the surplus wheat and flour which is being found hoarded by those who are seeking to make an undue profit out of this war situation, or who are regardless of the sufferings of the Allies.

A dispatch from Atlanta states that one grocery house in that State was found to be carrying over 5000 barrels of flour, estimated to be a normal supply for the firm for 28 months. It is gratifying to know that this flour has been seized by the Government, and we trust that every effort will be made to seize flour wherever it has been hoarded, whether in private families, in warehouses, in stores or in mills.

The private family that hoards flour at the present time is guilty of worse than treason. In this situation every man and woman should be on exactly the same basis, and the supply of flour should be limited to the barest necessities of those whose health requires flour bread, in part at least. All others should be disregarded and required to use other substitutes of cereals or potatoes.

The supply of wheat is desperately short. If we grind up the last available bushel in the country there will not be enough to go around and to take care of our own soldiers and of the Allies. It behooves the Food Administration, therefore, to move with vigor and energy and drastic power and do the thing which makes for the winning of the war, regardless of complaints of those who think that they must of necessity have flour bread. We know from experience that flour bread can be cut out almost entirely, if not entirely, from the diet of well people, and we know that it should be done in this great emergency in order to save the situation.

WHO WAS RIGHT?

NOW that we have been able to send only one aeroplane to our army in France, what becomes of Secretary Baker's wildly enthusiastic statement that the Liberty motor would destroy Germany, and his later statement to Congress that we had wrought mighty miracles in getting ready?

It is to be hoped that Mr. Baker's visit to France, made by reason of General Pershing's incessant call that he should come, will cause Mr. Baker to come home a wiser but a sadder man.

In the meantime, let Mr. Baker shut off his vigorous but unwise press agents and stop boasting until we have done something worthy of boasting.

A SAMPLE OF HUNNISH HELLISHNESS.

MR. LEWIS M. COLEMAN, an attorney-at-law in Chattanooga, recently read at a luncheon of the Rotary Club a copy of a letter which had been received by a friend of his from an army officer now in France. The writer of the letter was a Chattanooga business man, who went into training last summer, received a commission as second lieutenant, and has for some time been in France. While the name of the army officer, of course, cannot be given, Mr. Coleman vouches for the receipt of the letter, and of the standing of the writer of it as a personal friend of his.

In this letter the statement is made that two wounded American soldiers were barbarously treated by their German captors, who cut out their tongues and left them where the American soldiers would find them, on that fatal delusion of Germany that frightfulness at this time will deter people from fighting her accursed activities.

The letter of the lieutenant to a relative in Chattanooga as furnished to the MANUFACTURERS RECORD is as follows:

I have never been able to decide just what I could write back and what I couldn't. Other men are writing much more than I have been, so I am going to tell you a little about myself, being careful not to mention a place and a date in the same breath. They are very particular about that. I have been up to the front line trenches twice. The first time was on the French front near Verdun, the lines at this place were not very close together and things were rather quiet until the Germans found out that we were opposite them, they then began to send shells over at a pretty good rate. The men acted like I imagine veterans would act. I didn't see a single one who even looked afraid and the discipline was fine. Of course, some of them let their curiosity get the best of them when they first went in and stuck their heads up to have a look around, but that didn't last long.

I thought before I came over here that it was next to impossible to go into 'No Man's Land' and ever get back, but I find that patrols are out every night and most always get back all right. I was out for about five hours at the first place with some men and all got back without any trouble at all. The lines were a good distance apart though, so there wasn't much danger or trouble in getting back. About all that we had to do was to keep from losing our direction, which isn't so easy as it sounds on a dark night.

An incident happened up there that shows what the Germans are. Two Americans were wounded out in "No Man's Land," by no means fatally, only slightly; their tongues were cut out and they were left where we could find them. This was done for the moral effect that it would have on the men. If they could have seen the effect that it did have I don't think that they would try a trick like that again. Instead of putting any fear whatever into them, it has had just the opposite effect, that of increasing their fighting spirit.

After we had finished our turn up there, we went back to our billets behind the lines, and after staying there awhile, I was detailed to be attached to a British regiment at the front and spent two interesting and exciting weeks. I was covered with mud from bursting shells, saw an aerial battle in which a German plane was brought down, was sniped at and, best of all, sniped at and honestly believe that I hit a German officer. The trenches at this place were very close, being less than 30 yards at one place.

The worst thing about it all is the continual noise of exploding shells. You can easily understand men getting shell shock and having their nerves shattered. I went out with a night patrol up there to examine the wire in front of the trenches; didn't have any excitement except when the Germans sent up lights and then all of us flattened out in the mud. I wish that I could go into all the details of this trip, but I will have to tell them when I get back. During the trip I had to go over most of the Somme battlefield, where there are holes and graves everywhere. I passed through Peronne and stopped off between trains; not one single building left in a city of 60,000 or 70,000.

I think that I have been very fortunate in seeing both the French and English fronts. I had a really wonderful time with the British.

I have just had three hot baths in rapid succession, the first of any kind that I have had since I was in Paris about five weeks ago.

I didn't tell you about the rats in the trenches, did I? They are the limit; not only do they want to sleep with you, but they try to eat your meals with you. They are about the size of cats.

I hope that I am going to find a lot of mail when I get back to the regiment. Tell Susan to write me some letters. I enjoy hers a whole lot. They have started to let us send postal cards with the name of the place scratched off, so I sent a bunch of them.

Well, good-bye for this time. Love to all.

HOW THE NATION NEARLY LOST ITS SOUL.

PERCHANCE the awful agony of Europe in this fearful hour of world suffering may open the eyes of those who have been wilfully blind, and unstop the ears of those who have refused to hear, the real meaning of this great war.

Our own people have been so narrow-visioned, so absorbed in themselves and their own little, petty doings, that it has seemed impossible heretofore to cause many of them to break away from their narrow environment and look out upon this awful world tragedy in its true light. The terrific struggle of the last ten days may awaken the country as it has not yet been aroused.

This situation is interestingly presented in a letter from a leading Baptist minister of the South, who, in a personal letter to the editor of the MANUFACTURERS RECORD, written before the beginning of the great battle of the last ten days, said:

It must be a trial to the patience of those who see, as you do, the great issues of this war to note how those in positions of great influence are held by tradition and technicalities and are rendered reactionary, when everything is at stake. My wife constantly chafes at the uniform tone of denominational leaders in the missionary journals, who refuse to see that all the great work being done for helping the war has no relation to the work of the kingdom. She meets the same attitude among our own women. It seems to me here is another good text for you. I borrowed recently from the Foreign Mission Board the bulky volume, "The Treatment of Armenians," compiled by Viscount Bryce, a startling revelation of cruelty and savagery. My wife had one of our leading women to make use of it in a missionary program on Armenia. The lady prefaced her report of the book before the public meeting with the remark: "But, Mrs. —, I see nothing in it about the Baptists;" a mild protest that nothing is of interest to us except what Baptists are doing, not even the butchery of a Christian people.

And then referring to a recent address at a patriotic mass-meeting in the interest of the war savings campaign, this minister referred to the fact that he had introduced the speaker, and said:

In introducing him I repeated what I have been trying for some time to hold before the people of the community, that one of the greatest needs of America is a great religious mass-meeting in every community, when all the church people will come together to study the great moral and religious issues of the war; for the time has come when we need to have our patriotism stiffened by all the moral and religious fervor possible.

For is it not the verdict of history that no people has ever put into the field an unconquerable army till that people was convinced that it was fighting for principles so deeply moral and religious that it was a privilege to die for them if necessary?

Our people have always held that war is wicked, and that we had outgrown it forever; for most of us it has been a violent and impossible transition to the point you and I have reached, that this war is for us a most righteous and religious thing. It has grown on me that the churches and the religious press now hold the key to the situation; the nation will not truly put its heart into the war and be ready to empty its treasures of life and money until the conviction is pressed home that it is a deeply religious war we are waging. To press home that conviction is one of the most urgent duties of the pulpit and religious press; no wonder if your patience is sorely tried by the negative or reactionary attitude of so many preachers and editors.

The position taken by this thoughtful minister is one which must be studied and deeply pondered over by every man and woman in America; and it behooves us to understand that there are many men and women who, like the Baptist woman mentioned, seem to see nothing of importance in the report of the awful atrocities in the destruction of Armenia because there was nothing in the report that dealt specifically with her denomination.

We have sometimes almost wondered whether God Himself could save a nation so steeped in love of ease and in narrowness of vision.

A few weeks ago a medical missionary, a man of high standing, who for years had been working in Palestine and among the Armenians, spoke in a Florida town about the whole Armenian situation and the fearful campaign of murder carried on by Turks and Germans alike. His address was scheduled from 7 to 8 P. M., and then the public hall in which he was to speak was to be used by the young people of the community for a dance. As this medi-

cal missionary told one of the most appalling tales ever heard by human ears of the crimes committed upon Armenians, a story which almost staggered the comprehension of those who listened, he overran his appointed hour by some minutes, and the crowd of thoughtless, pleasure-loving young men and women stood outside the public hall impatiently demanding the closing of his address that they might have the opportunity of opening their frivolous amusements and their dance. And the same room which one hour echoed with the story of horrors sufficient to chill every heart that heard it, a few moments thereafter was gay with all the frivolity of a crowd of young people who sought only their pleasure without ever one thought of the fearful story which had just been told. They were thinking of their own amusement, while the awful picture of dying women and children, murdered by the thousands and the tens of thousands, the awful agony of starvation and of suffering from every inhuman cruelty which Turks and Germans alike could devise, touched not their hearts. They wanted the story of these horrors shut off that they might begin their festivity and their dance.

But these young people were only typical of the nation during three years of the most fearful suffering earth has ever known. The cry of the American people everywhere was:

"On with the dance; let joy be unconfined."

"What care we for Europe's suffering?"

"What care we for millions of dying mothers and babies?"

"What care we for millions of soldiers fighting that our nation might live?"

"What care we for the cry of hungry Europe for food unless we can sell it to Europe at an exorbitant price?"

"Why should we concern ourselves when 3000 miles separate us from the struggle, and while we are fattening on Europe's sorrow, and our prosperity is enriched by the bodies of millions of European soldiers who die that we might live?"

This was the spirit of the American people, and deny it we as a nation cannot. We cared more for pleasure than for duty; more for peace than for honor; and men who should have been leaders in marshalling the moral forces of the nation and awakening into life the latent good in the people of this country sang a lullaby to the sleepers and soothed them into deeper slumber, instead of with a trumpet voice calling them to awake ere it be everlastingly too late—not only too late to save the physical life of this country and of our Allies, but to save the moral and spiritual life of the nation.

The failure of our leaders and teachers to call the nation to life is a blot upon the career of this country which should make us hang our heads in shame.

SHOOT GERMAN SPIES!

A DISPATCH from Chicago states that Government agents arrested a number of pro-Germans who celebrated the initial success of the German drive on the Western front. Reports from New York and from the West have indicated that there was almost wild hilarity in many of the German restaurants and in German homes, and while in some cases these Germans pretended to be loyal to this country and ostentatiously made contributions to the Red Cross, they were at the same time wildly celebrating what they thought was German success on the Western front.

These Germans and pro-Germans were, according to the dispatch in the daily papers, severely punished! One of them, indeed, was fined as much as \$200, three were fined \$25, and two were fined \$5 each!

There is a rising tide of bitterness against the Germans in this country and against our Government for its failure to adequately punish them. This feeling will break loose in mob spirit sooner or later, and it will mean great destruction of property and of the lives of Germans.

Men whose sons and brothers are in Europe fighting this battle of civilization will not much longer permit Germans and pro-Germans in this country to vent their hatred of America. If the Government

will not shoot the spies and imprison for long terms or for life these alien enemies who are working against our nation, then the public will take the matter in charge, and in such an hour woe betide the man of German proclivities or even of German name, for many innocent will suffer with the guilty.

Some newspapers have been carrying an advertisement of one of the defense societies headed "Imprison German Spies," when it should read "Shoot German Spies!" There is no other method of reaching the German conscience, if there is such a thing, than by drastic physical punishment. This nation needs to get at the task very promptly.

THIS WAR IS NOT A WAR TO SAVE DEMOCRACY, BUT A WAR TO SAVE OURSELVES AND CIVILIZATION.

BROADLY informed men may perchance be surprised to learn that there are a great many people in this country who do not differentiate between the meaning of "democracy" and the meaning of the "democratic party." Nevertheless, there are many people of that trend of thought. It was primarily because of the knowledge of this condition that we have persistently insisted that this war is not a war to make the world safe for democracy, but a war specifically to save ourselves from destruction. The world could live without democracy. Civilization could live without democracy. But civilization could not live under the rule of German barbarism; and the world itself had better be swept bare of every inhabitant than to be engulfed by German barbarism.

We are not in this war for the purpose of saving democracy, either in this country or in Europe; for that would minimize the real intensity of the force which is driving us into this war.

It is not democracy, but it is the life of this nation, and the life of the nations whose heroic struggle to save themselves has thus far been the means of saving us from destruction for which we are at war.

We are not in this war to decide how all the various countries of the world shall be governed, for we are not called upon to rule the destinies of the world, nor settle the question as to what form of government every individual country shall adopt for itself. But we are in this war to everlastingly smash the murderous power of Hohenzollernism, which specifically is fighting this country and all civilization.

When Germany declared war upon various European countries, it in effect declared war upon civilization, and it was from that day definitely in war with us, for it was making war upon us. It did not need that we should wait until April of last year to realize the fact that Germany was our avowed and determined enemy, and that it had for 15 or 20 years been the practically open and avowed purpose of Germany to fight the United States whenever the propitious moment came and it was ready to attack us.

This struggle in which we are engaged is a life and death struggle, not merely to make democracy safe, but to make existence safe. It is a curious fact, and yet one not to be wondered at, that the emphasis which has been laid in the press and in the pulpit and in politics upon the claim that this is a fight for democracy has been misinterpreted by many people to mean that it is a fight in behalf of the democratic party. Illustrating this point is a letter from one of the leading business men of Asheville, N. C., in the course of which, referring to the necessity of making the issue clear, he says:

There are so many phases! For instance, up here in these mountains there are people, Republican in politics, who actually believe that the phrase, "Fight for democracy," means a partisan battle for the Democratic party. It has been the effort of our speakers to disillusion such audiences; in fact, they are usually sent out from here in teams, among them prominent Republicans.

We have had instances where audiences were cold; and as long as the speaker dwelt on the altruistic and the abstract he did not get much sympathy; but as soon as he commenced to tell of the horrors of the German campaign the very atmosphere of the room would change. In short, a full realization is necessary to success. I have no doubt that this will come in time.

If it can only come through the efforts and warnings

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of those who, like you, see the "hand-writing on the wall," instead of through an awful sacrifice of American life, so much the better.

This statement very clearly sets forth one of the reasons why we have laid such emphasis upon the necessity of letting the entire country understand the real meaning of the war. And that meaning is a fight for our own existence as a nation; a fight for the women and the babies of this country; a fight for all that man holds dear on earth. It can easily be seen how among the mountain people of the Carolinas—and by the mountain people we mean those who live largely off to themselves, but who are of the purest Anglo-Saxon stock in the world, but do not come in touch with daily newspapers and who think of democracy only from the viewpoint of the democratic party—the meaning of the war might be misunderstood. And yet it is essentially necessary that people with such superb inherent strength of character as these mountain people, and many others throughout all the nation, of which they are but types, shall fully understand the meaning of the war.

We would, therefore, strongly emphasize the suggestion which we have repeatedly made that newspapers and public speakers entirely drop all repetition of the erroneous statement that we are fighting for democracy, and straight out from the shoulder hit at German barbarism as an attack of atheism in its most barbarous form against Christianity itself. The task before this country is to awaken every man and woman to the full realization that the war is a war of barbarism against civilization; of atheism against Christianity, while it is in the broadest sense a war of entrenched autocracy against democracy, primarily and fundamentally it is German barbarism against American existence which has called us into the struggle.

THE LIVESTOCK SUPPLY OF THE UNITED STATES AND WHAT THE SOUTH IS DOING.

ACCORDING to preliminary figures issued by the Department of Agriculture, the United States on January 1, 1918, had on its farms 187,104,000 head of principal meat animals—cattle, sheep and swine—an increase of 7,402,000 or 4.1 per cent. compared with the number reported January 1, 1917, and 14,200,000 head or 8.2 per cent. more than were reported on the farms of the country January 1, 1915.

The Southern States on January 1, this year, are reported to have had on farms 58,338,000 head of cattle, sheep and swine, a gain of 1,981,000 or 3.5 per cent., compared with last year, and 4,196,000 or 7.7 per cent. increase compared with 1915.

The whole country on January 1, 1918, had 23,284,000 milch cows, an increase of 390,000 over last year, and 2,022,000 more than on January 1, 1915; 43,546,000 head of cattle other than milch cows, an increase of 1,857,000, compared with last year, and 6,479,000 more than in 1915; 48,900,000 sheep, a gain of 1,284,000 over last year, but 1,056,000 less than reported on January 1, 1915; and 71,374,000 swine, an increase of 3,871,000, compared with 1917, and a 6,756,000 gain over the number reported January 1, 1915.

The explanation as to the increase in the number of swine in the country as given by Mr. L. M. Estabrook, chief of the Bureau of Crop Estimates, United States Department of Agriculture, shows that the reasons for this increase are much less satisfactory than could be desired, and are practically due to the smaller number of hogs marketed during the latter part of 1917 as compared with the corresponding time of 1916. Mr. Estabrook's letter was called forth by an inquiry from the MANUFACTURERS RECORD asking for an explanation as to why the Department's report last September showed a decrease of about 7 per cent. in the number of hogs as compared with September, 1916, while the report for January showed an increase over the preceding January. In his letter Mr. Estabrook says:

In September, 1917, the number of hogs in the country as of September 1 was estimated to be about 7 per cent. less than on September 1, 1916. In January, 1918, the number of hogs in the country as of

January 1, 1918, was estimated to be 5.7 per cent. more than on January 1, 1917. These two estimates, one showing less, the other more, than one year preceding, are not conflicting, or inconsistent with actual conditions. Between September 1, 1916, and January 1, 1917, the slaughter of hogs was very heavy and births relatively light, whereas between September 1, 1917, and January 1, 1918, slaughter was very light and births relatively heavy.

Thus, the marketings of hogs at 12 markets in the four months September-December, 1916 and 1917, were as follows:

	1916.	1917.
September	1,579,000	1,042,000
October	2,387,000	1,683,000
November	2,457,000	2,796,000
December	3,610,000	2,614,000

This gives total marketings of 7,845,000 in 1917 as compared with 11,073,000 in 1916, for the 12 markets in the four months—a reduction in marketings of nearly 30 per cent. It may be observed further that during November and December, 1917, many light hogs were shipped back to the country from market centers, to consume the vast amount of soft corn held in some important States.

It is gratifying to see some progress, even though small, in the increase of livestock, but considering the great demand on this country for supplying not only our increasing population, but the needs of the allied countries, we need to greatly increase our production of meat animals over this small gain. In 1907, for instance, or eleven years ago, this country had 72,500,000 head of cattle compared with 66,800,000 head reported on January 1, this year, and even as far back as the census of 1900 there were nearly 68,000,000 head of cattle in the country.

On January 1, 1918, there were reported 48,900,000 sheep on the farms of the United States, but in 1903, fifteen years ago, there were nearly 64,000,000 sheep, and as far back as 1884, or thirty-four years ago, when the country had only half its present population, there were reported 50,600,000 sheep, or 1,700,000 more than this year.

On the farms of the South January 1, 1918, there were 6,983,000 milch cows, an increase of 165,000 or 2.4 per cent. over January 1, 1917, and 556,000 or 8.6 per cent. more than in 1915; while the rest of the country outside of the South had on farms an increase in 1918 over 1917 of 225,000 or 1.4 per cent., and in 1918 over 1915 1,466,000 head or 9 per cent. more.

The estimated number of cattle other than milch cows on the farms of the South January 1, 1918, is reported at 14,779,000, a decrease of 55,000 over January 1, 1917, although a gain of 1,245,000 or 9.2 per cent. over the number reported January 1, 1915. Every Southern State had an increase in cattle other than milch cows, compared with last year and with the number reported in 1915, except Texas. The decrease in Texas this year alone amounted to 822,000. Excluding Texas, the South instead of having a decrease of 55,000 this year, compared with last year's figures, would show an increase of 767,000 or 8.2 per cent. Georgia this year, with a gain of 25 per cent. cattle other than milch cows, shows a larger increase than any other State in the country. The rest of the country on January 1, 1918, had 28,767,000 head of cattle, an increase of 1,912,000 or 7.1 per cent. over January 1, 1917, and 5,234,000 or 22.2 per cent. more than in 1915.

The number of sheep estimated on the farms of the South January 1, this year, was 8,504,000, an increase of 206,000 or 2.5 per cent., compared with 1917, and 54,000 or .6 per cent. increase over 1915. For the rest of the country there is reported a total of 40,396,000 sheep, an increase of 1,078,000 or 2.7 per cent., compared with 1917, but a decrease of 1,110,000 or 2.6 per cent. less than were reported on January 1, 1915.

On January 1, 1918, there were 28,072,000 swine on the farms of the South, an increase of 1,665,000 or 6.3 per cent., compared with 1917, and 2,341,000 or 9.1 per cent., compared with 1915. The rest of the country, outside of the South, on the first of the year had 43,302,000 swine or 5.3 per cent. more than on the same date in 1917, and 4,415,000 or 10.1 per cent. increase, compared with 1915.

In a recent bulletin of the Southern Railway, referring to these statistics on cattle and swine raising in the South, it was pointed out that each

of the States of Georgia and Alabama has more hogs than all of the New England States, and New York, New Jersey, Delaware and West Virginia combined, a good illustration of what the South is doing for which it rarely gets credit.

ESTIMATED NUMBER OF PRINCIPAL FOOD ANIMALS ON FARMS IN THE SOUTH, JANUARY 1, COMPARED WITH REST OF COUNTRY AND TOTAL NUMBER IN THE UNITED STATES.

	1918.	1917.	1915.
Southern States.			
Milch Cows.....	6,983,000	6,818,000	6,427,000
Other Cattle.....	14,779,000	14,724,000	13,531,000
Sheep	8,504,000	8,298,000	8,450,000
Swine	28,072,000	26,407,000	25,731,000
Total South.....	58,338,000	56,357,000	54,142,000
Total Rest of Country..	128,766,000	123,345,000	118,761,000
Total United States....	187,104,000	179,702,000	172,903,000

ESTIMATED NUMBER OF MILCH COWS ON FARMS IN THE SOUTH, JANUARY 1, BY STATES.

	1918.	1917.	1915.
Alabama	433,000	405,000	384,000
Arkansas	425,000	405,000	387,000
Florida	145,000	141,000	132,000
Georgia	435,000	418,000	406,000
Kentucky	435,000	418,000	390,000
Louisiana	324,000	300,000	268,000
Maryland	181,000	183,000	177,000
Mississippi	508,000	475,000	434,000
Missouri	910,000	875,000	797,000
North Carolina.....	309,000	315,000	315,000
Oklahoma	562,000	535,000	491,000
South Carolina.....	193,000	189,000	185,000
Tennessee	373,000	366,000	355,000
Texas	1,128,000	1,175,000	1,119,000
Virginia	377,000	373,000	349,000
West Virginia	245,000	245,000	234,000
Total South.....	6,983,000	6,818,000	6,427,000
Total Rest of Country..	16,301,000	16,076,000	14,835,000
Total United States....	23,284,000	22,894,000	21,262,000

ESTIMATED NUMBER OF CATTLE, OTHER THAN MILCH COWS, ON FARMS IN THE SOUTH, JANUARY 1, BY STATES.

	1918.	1917.	1915.
Alabama	668,000	534,000	504,000
Arkansas	628,000	560,000	481,000
Florida	891,000	865,000	735,000
Georgia	785,000	686,000	660,000
Kentucky	581,000	570,000	543,000
Louisiana	578,000	535,000	418,000
Maryland	134,000	125,000	121,000
Mississippi	644,000	570,000	514,000
Missouri	1,782,000	1,650,000	1,414,000
North Carolina.....	373,000	364,000	369,000
Oklahoma	1,404,000	1,300,000	1,119,000
South Carolina.....	252,000	215,000	211,000
Tennessee	354,000	328,000	316,000
*Texas	4,690,000	5,482,000	5,711,000
Virginia	510,000	486,000	451,000
West Virginia	373,000	369,000	338,000
Total South.....	14,779,000	14,834,000	13,531,000
Total Rest of Country..	28,767,000	26,855,000	23,531,000
Total United States....	43,546,000	41,689,000	37,062,000

* Decrease of 822,000 over 1917 and 561,000 over 1915, while all other Southern States show increase on last year and 1915.

ESTIMATED NUMBER OF SHEEP ON FARMS IN THE SOUTH, JANUARY 1, BY STATES.

	1918.	1917.	1915.
Alabama	131,000	121,000	119,000
Arkansas	149,000	124,000	130,000
Florida	120,000	119,000	119,000
Georgia	144,000	150,000	163,000
Kentucky	1,270,000	1,155,000	1,229,000
Louisiana	299,000	240,000	180,000
Maryland	234,000	223,000	221,000
Mississippi	174,000	182,000	208,000
Missouri	1,406,000	1,370,000	1,490,000
North Carolina.....	137,000	140,000	177,000
Oklahoma	208,000	194,000	76,000
South Carolina.....	31,000	30,000	32,000
Tennessee	606,000	600,000	674,000
Texas	2,188,000	2,328,000	2,114,000
Virginia	686,000	686,000	720,000
West Virginia	751,000	715,000	796,000
Total South.....	8,504,000	8,298,000	8,450,000
Total Rest of Country..	40,396,000	39,318,000	41,506,000
Total United States....	48,900,000	47,616,000	49,956,000

ESTIMATED NUMBER OF SWINE ON FARMS IN THE SOUTH, JANUARY 1, BY STATES.

	1918.	1917.	1915.
Alabama	2,128,000	1,850,000	1,559,000
Arkansas	1,643,000	1,550,000	1,573,000
Florida	1,375,000	1,100,000	949,000
Georgia	2,766,000	2,585,000	2,642,000
Kentucky	1,716,000	1,589,000	1,582,000
Louisiana	1,568,000	1,584,000	1,412,000
Maryland	388,000	359,000	349,000
Mississippi	1,902,000	1,688,000	1,540,000
Missouri	4,708,000	4,280,000	4,250,000
North Carolina.....	1,464,000	1,450,000	1,525,000
Oklahoma	1,219,000	1,325,000	1,420,000
South Carolina.....	966,000	920,000	819,000
Tennessee	1,634,000	1,485,000	1,501,000
Texas	3,068,000	3,229,000	2,880,000
Virginia	1,165,000	1,023,000	956,000
West Virginia	422,000	380,000	374,000
Total South.....	28,072,000	26,407,000	25,731,000
Total Rest of Country..	43,302,000	41,066,000	38,887,000
Total United States....	71,374,000	67,503,000	64,618,000

JAPANESE ENTRY INTO SIBERIA VITAL FOR SUCCESS AGAINST GERMANY.

By COURTENAY DE KALB.

Although my answer to the editorial inquiry concerning the desirability of permitting Japan to enter Siberia was sent by wire, and will be printed in the *MANUFACTURERS RECORD* before this can reach Baltimore, the question propounded has so great an importance, both for us in our day and for the future of the human race, that it deserves consideration in its larger aspects. It brings home to us in concrete form that the Japano-Mongolian factor has entered into the equation of world politics; that the destiny of man is not to be reached without ascertaining and substituting the value of that factor in the great equation that the world is now struggling so bitterly to solve. To extend the simile, we cannot solve man's political equation without first solving his present military equation, with its long list of unknown factors—the American *x*, the English *y*, the French *z*, the German *s*, the Russian *q*, and all the rest, and among these the Japanese factor, through a series of events that could not have been guessed at the beginning of the war, has also been thrust into both the military and the political problems of the world.

The questions we must put to ourselves in order to prepare our minds for a dispassionate consideration of the propriety of unleashing the Japanese dogs of war are numerous. Here are some of them: Shall we risk an irruption of the Teutons into many-harbored Greece, there to establish a dead-line for shipping across the Mediterranean? Shall we risk the safety of Italy's coast by subjecting it to the danger of raids from possible German bases on the Ionian and Aegean seas? Shall we risk the utter collapse of unsupported Allied armies in Asia Minor by reason of German successes on her southern fronts? It will be found that the Japanese question is intimately related to a solution of these problems in a manner that shall prove favorable to us and our Allies.

It is a significant fact that the most promising existing opportunity for an effective Allied offensive will be lost in a relatively short period unless a Japanese military movement is initiated in Siberia. Opinions differ regarding the serious effect that might follow from German dominance in the eastern Siberian provinces. Nothing similar to "the graveyard of the Atlantic," where hundreds of ships lie at the bottom of the sea around the British Isles, would be reproduced in Oriental waters, because there is no equivalent concentration of shipping; but the presence of German submarines and raiders in the Pacific would complicate the problems of the Allies and harass their lines of communication to valuable resources of rice, wool, zinc, rubber, tungsten and many other needed supplies. It would be folly to endanger intercourse with the Orient if it could be avoided, and it can be completely prevented by throwing a Japanese barrier against Germany in Siberia. Moreover, it must be done promptly if it is to yield its largest measure of good.

The occupation of eastern Siberia by Japan would be primarily a defensive movement. It might suffice to control the territory as far as the junction between the all-Siberian and the trans-Manchurian branches of the Siberian Railroad. This would involve holding Amur and the peninsula of Coa, but a surer protection would be afforded by concentrating forces as far west as Irkutsk, and the Japanese military staff would undoubtedly deem this necessary. If it were not done, leaving military considerations aside, the invasion could be more readily misrepresented to the Russians as an occupation of the rich valley of the Amur with the ulterior motive of Japanese colonial expansion.

The density of population in Japan is about 356 persons to the square mile, while that of the Amur Valley is only 1.6. It is the nearest fertile territory to Japan that would afford a genuine relief for her pressure of surplus workers. Accordingly, the occupation of Amur alone would be viewed with grave suspicion by the Russians, and it would not serve to alarm the Central Powers, because it would lack significance as a military movement. The value of the enterprise, in its effect upon the immediate conduct of the war, would then be small, for it would not compel military resistance on the part of Germany, and it would lose for the Allies what-

ever friendship the Russians may actually feel for them.

The establishment of a Japanese military base at Irkutsk, however, would necessitate a counter-movement in force by Germany, which she would make under the plea of being the protector of Russia.

The fact must be frankly and fully accepted that Russia will resent Japan's invasion of Siberia, and that her doing so will tend to cement the interests of the Russian common people and the old landed aristocracy. The nobles see in Germany a probable supporter of their ancient privilege, while the Bolsheviki would avow that Japan had come as the devourer of the rich provinces of the East. Consequently, Germany would experience less difficulty in mobilizing a Russian auxiliary to her own forces in order to repel Japan.

This is part of the price that would have to be paid for summoning Japan to protect the Allied interests in the Orient and in the Pacific Ocean. We may not forget, either, the hostility of the Russian for the Japanese, which is only approached in degree by his antipathy for the German. There is no basis for affiliation with either, but the circumstance of wide racial difference from the Japanese will probably incline him to prefer the German.

It is quite foolish for us to play ostrich in these matters. It is the greatest ultimate good to ourselves, and to that Christian culture and larger human destiny that we are fighting to preserve, that must determine our course, after all the facts have been considered and weighed. The really delicate political situation in Russia has passed. Fighting for so-called democracy by one faction and another may be seen during the period of Teutonic dominance, and it is also indubitable that Germany will encourage it to some extent in order to prevent the development of a Russian solidarity that might be utilized by active leaders to precipitate an effective revolution at some critical moment. It will be part of German policy to keep the house divided against itself. The readiness with which Russia fell to pieces along ethnographic lines was what ethnologists generally expected when the Czar was dethroned, and none anticipated it more certainly than the Germans. By dealing with each separately, and by playing the natural selfish antagonisms of one against the other, the problem of Teutonic control, without having to use a great army for police purposes, becomes simplified. Peace between the various sections of Russia would tend to create commercial bonds, which engender friendships and political associations, so that uprisings and armed classes between the several divisions of Russia will be encouraged as long as the war lasts to facilitate the Teutonic grip upon the country.

That Japan's entry into actual hostilities through an invasion of Siberia would strengthen German control of Russia is not to be disputed. On the other hand, she will exert control there in any case, and no such thing as democracy in a form that we who have been brought up in it could recognize will develop, even if Germany's hand were withdrawn.

After the insult to our nation sent by the Soviet in Moscow, answering President Wilson's message, in which they snubbed him and undertook, as obedient servants of the Kaiser, to sow seeds of revolution and anarchy in this country by directing their telegram to "the exploited classes" in America, it is not unjust to remind our people that to call "democracy" in Russia is like opening the door of our house and calling "pussy" and have a wildcat answer to the call. To be sure, the *Lynx rufus* is a cat, but it will take a long time before he will be domesticated so as to add to the felicity of the family gathering around the democratic hearthstone.

Nevertheless, Russia did proclaim popular government, and out of it might come something desirable if it could be coddled and nursed by peoples experienced in real government "by the people and for the people," as Lincoln used to say. We cannot turn our back upon this ill-formed pretense of self-government in Russia merely because it has the crudeness and irresponsibility of an incorrigible urchin; the boy may yet be reared into a useful man. Therefore we should not send an irresponsible invader into Siberia, and we must reflect that

a man or a nation given carte blanche is not placed in a position of responsibility, because it has not been pledged to accountability.

This emphasizes the need of an explicit disavowal by Japan of intent to retain the territory occupied. Demanding pledges from nations, however, is no light matter. The business of a government is the taking care of its own people, having in view their best development. It is hard to foresee what embarrassment a promise hastily made today might produce at a later period when conditions were changed. Perhaps it might be indelicate for us to demand from Japan a self-imposed limitation upon her freedom of action in the face of exigencies that might arise out of this war, but England is in a difficult position; she is allied to Japan by treaty, and a formal acknowledgment to England of mere trusteeship in Siberia, accepted by Great Britain on behalf of the other powers, including Russia as soon as she may have organized a free and independent representative government, would afford ample assurance to all true Russian reformers. It would constitute a guarantee having the endorsement of England, who is interested in maintaining the status quo in the Orient, and it would absolve us from interference beyond our normal sphere of action.

Some such obligation, whether given through England, or in any other form, is essential to complicate the German problem and to render it less easy for her to incite the Russians themselves to turn against Japan. That it would not, with any degree of completeness, allay Russian suspicions may be assumed as the reason for President Wilson's hesitancy to sanction, directly or indirectly, the proposed defensive invasion by Japan. Approval is the more difficult for him, on account of his special attempt at tutelage, in the name of democracy, of the Russian revolutionary movement.

It may be pointed out that our Government has not been consistent in sustaining the liberty of action of democracies in the East, since, to quote from Secretary Lansing's formal letter of agreement with Viscount Ishii last November, it was explicitly stated: "The governments of the United States and Japan recognize that territorial propinquity creates special relations between countries, and consequently the Government of the United States recognizes that Japan has special interests in China, particularly in the part to which her possessions are contiguous."

It is generally understood that the action of the Chinese republic in declaring war upon Germany immediately after the Lansing-Ishii agreement had been reached was partly to offset the effect of Japanese influence upon her internal affairs by linking her destinies more closely with the European powers that would determine international relationships in a general treaty of peace after the war. Consistency is reputed a minor virtue, however, and these discrepancies in our policy toward democracy in China and democracy in Russia may find excuse in the urgency of stiffening the Russians against German penetration.

On the other hand, it may be urged that we might have turned the necessity for effective protection of Allied interests in the Far East to account by securing our own guarantee from Japan of her trusteeship on behalf of a popular Russian Government, disregarding for the time any possible future complications with Japan over her ultimate evacuation of Siberia. It may appear that our active interest in claiming such guarantees from Japan might have increased the confidence of the Russians in the friendly object of the occupation and thus have made Germany's problem more difficult. Opinions may easily differ regarding this, but there can be no doubt that the paramount military necessity of the case requires the entry of the Japanese in such a manner and in such strength as to threaten a campaign that would imperil German interests in European Russia, in order to bring about extensive preparations by Germany for resistance, thus calling heavily upon her resources in men and munitions.

Whether this would relieve the pressure upon the west front is open to doubt. The German side of this front is a series of fortified lines estimated to be 30

Some Other Sidelights on the Situation as Viewed by Mr. De Kalb.

Writing from Stanford University under date of March 23, a few days after the preceding article was written, Mr. De Kalb in a personal letter broadly discusses some vital questions relating to the war and the need of the organization of a great military force of men beyond the present war age. His letter is of such general interest that we are taking the liberty of using it practically in full. It is as follows:

"Just as I write comes the news of the reverses in France that may prove extremely serious. Close analysis of the dispatches, however, indicates that no great length of the Allied lines has given way and penetration through a narrow break would possess no military importance. The enemy cannot pour through a short gap without exposing its flanks so that the invading force would soon be cut off. Nevertheless, the effect of today's happenings will keep the Allies from rushing troops to Italy and Greece, which I believe was the purpose of the present German demonstration.

"Meanwhile the Germans have not failed to make an effort to hold the strategic point in Siberia which I pointed out in my article last week. Thus they have anticipated the logical move of the Japanese, but a prompt invasion by the Japanese would still render it probable that they could either capture Irkutsk or establish a counter force that would draw large reserves of Teutonic troops to that point. What has now taken place, both on the west front and at Irkutsk, gives even greater urgency to the attack by the Japanese. I am sorry to see that Washington appears to actually stand in the way of this needed military coup. That is going too far with sentimental regard for ideals of democracy. It is very different from the case that would be presented if a real government existed in Russia. Kerensky made a brave show of organizing the Russians, but he failed, and not even Milionkov succeeded in gathering the fragments together. Such government as he maintained in the beginning was merely the old dazed remnant of the imperial governmental mechanism—a continuance of government from momentum.

"I was interrupted at this point. It is now Sunday morning. The dispatches confirm my surmises of yesterday regarding the German offensive. You will have seen the unsigned War Department opinion, stating, among other things: 'If the British had troops in England prepared to reinforce Salonika or the armies further east, by this drive they have been diverted to France.' That is in line with my reasoning. The sad thing is that the German bluff drive is able to achieve that purpose. The sadder thing is that it is Germany that is able to make an offensive on the west front rather than the Allies. An Allied bluff drive would have the effect of drawing German troops away from the south and the east just as effectually as the German bluff drive now holds Allied troops from going to strengthen those southern and eastern armies, where they could develop a really effective campaign that would forever cut off Germany from reaching her goal on the Persian Gulf.

Do our people realize that when Germany does reach tidewater on the Indian Ocean she will require so large a portion of the British fleet to guard that part of the world that the strength of the North Sea fleet will be so weakened as to afford the Germans the chance of risking battle on the sea under more nearly equal terms than ever would have been possible otherwise? Do they realize that a British naval defeat would end the war so far as England and France are concerned?

"I am stating this because I fear that our people do not realize what we are struggling against; that they have not yet put aside the feeling that routine daily work is enough, and that it excuses the comfortable slippers and cigars by the fireside in the evening.

"We surely cannot deny that it is the Germans and not the Allies who are making an offensive movement, and that fact alone spells inability on our part to do what every militarist declares, and has declared, since fighting has been a science, is essential for success, namely, to take the initiative. How many old saws there are expressing the same truth, a truth that applies to every phase of human endeavor. 'The world belongs to him who can.'

"The army that withstands such a huge and brutal

assault as the army in France is sustaining today is a brave, heroic body of men; they are saving us from the terrible calamity of having a German bluff drive become magnified into an unexpected victory. May we reward those who survive as they deserve. They may give us time to take the initiative yet in a fair field, where we can really turn this flood of Teutonic barbarism and keep it from destroying the world.

"But do you think those brave boys in France fail to wonder why it is that it proves to be the Germans who are making this drive? Why it is that we sat and wondered whether the Germans would take the initiative and make a west drive, and when they might do it? Men on the battlefield acquire the habit of heroism, and part of that brave spirit is to hit first. When he has to hit second, and in defensive action, he wonders what the men in the rear, the men who ought to be getting ready to support him, and to supply the army with guns and munitions, are doing. While fighting against German savages, our boys at the front are not speculating about fine points in diplomacy and democracy and the ultimate effect upon the Bolsheviki if we should shut our eyes while Japan goes in and does some useful work in drawing off those Teuton hordes so that we may put ourselves, from a military standpoint, on the right side, that is, on the offensive and winning side in this war. Be sure that those men who are fighting there today in France to hold the Hun back from Paris and you and me are doing a lot of worrying over the problem of what we, in the momentarily safe and distant rear, are doing and are going to do about it.

"There is no use in squabbling with the Government over the reasons why we have not done more. The Government is doing all it knows how to do as it is now constituted, and as the whole officialdom in Washington is sincerely anxious to do more, it is presumable that it will call new men in many departments of work to try to find out what new ideas they may have that will help us to produce more guns and powder and to get more men ready and equipped.

"The fact that Germany and not the Allies is making a drive means, of course, that we lack men, supplies and facilities of transportation adequate for sending a great army into Italy and Greece and Mesopotamia. It is clear that the Germans are merely harassing the lines in France so as to keep us away from the points where they expect to achieve their larger and more permanent successes. **The problem for us is to do more work; to give up the idea that this is a boy war, and for all of us—middle-aged, summit-aged, old-aged—to get busy with all the strength that lies in us, and PUSH THIS WAR.** We are too prone to think that the 'next draft' will supply the deficiency; that the next Liberty Loan will whip the Kaiser; that Thrift Stamps will kick the Kaiser over; all of which is like the oratory of Felix Walker, whose speech in Congress didn't amount to much but was given in all loyalty for Buncombe.

"There is only the merit of willingness to do one's duty involved in buying bonds, for the Government is part of you and me, and we are part of it, and all that we have we hold through sufferance of the sovereign state. We must not forget that, because in forgetting it we are seeing things out of their proper perspective. There is and there must be a final authority, and that final authority is the Capitol at Washington. The voice of the people registered by vote of Congress will take not merely money but the thing for which money is merely the symbol, our service and the fruits of our service, if the case come to an extremity. The trouble is that the Government will hesitate to drastically exercise the supreme powers of the sovereign state so long, waiting for our voluntary offer of service, that it may be too late.

"We must take the initiative. We must be the ones, always and unflinching, to move offensively. Whenever we hear of our repulsing the German attacks, if the news is no more serious even than that, we may remind ourselves that the news would read better if it said that the Germans had repulsed the Allied attacks. As long as we can keep them on the defensive, though they defend themselves bravely and for the most part successfully, we are wearing them down. The army that is always resisting is not able to fight with the same high

miles deep. The men engaged in the front trenches are frequently relieved, so that the forces are maintained in good condition for fighting, and relatively small numbers are required as compared with the forces needed to hold a single or double line of trenches. To pierce the German west front would be exceedingly difficult, and the attempt would result in sacrifices out of proportion to the gain that might be achieved by an equal number of men on fronts where open campaigning is possible. The advantages to Germany in assimilating Russia and in carrying out her objectives in Asia Minor and Persia are so great that it seems unlikely that she would attempt a determined drive in the west, where she can but regard the issue as doubtful, and where reverses would be exceedingly disastrous. We may consider the west front as a line of neutralized forces, and any German drive in that quarter will prove to be only a feint to keep the Allies from drawing large complements of troops for action elsewhere. Henceforth the serious offensive of the Teutons may be expected in the Balkans, aimed at dislodgement of the Allies from Salonika, and in Asia Minor along the coveted route to the Persian Gulf. The opportunity for open campaigning is still present in those directions, and it is well known that the German military leaders look with regret upon the necessity for "digging in" anywhere. The great military successes are won where free movement of armies is possible. Immediately after gaining access to Odessa the Germans announced that the way was now clear to Persia, and Turkey has already made reprisals upon the helpless Caucasus republic, and has reasserted authority over Black Sea ports that had been wrested from her by the Russians. It is evident that the larger issues of war and conquest are to be transferred to the near East, and must be promptly met by the Allies. The Japanese entry into Siberia will react upon Germany's plans in the south, and will greatly cripple her efforts in that direction. The forces that she would be compelled to fling against the Japanese would be at the expense of the effective operation below the Black and Caspian seas. This would give us and our Allies time to take advantage of a like opportunity for open campaigning in the same fields of action.

The assault upon Gallipoli is universally recognized as having been a mistake. It was an attempt to land troops and back them up with the fleet, a procedure that lacks the advantage of a broadly sustained land campaign in co-operation with a naval attack. It may not be too late to do this still. The Allied powers now hold most of Palestine, the lower part of Mesopotamia and Greece. Although inability to launch a Balkan campaign sooner, together with the Russian fiasco, has resulted in the collapse of Roumania, a strong offensive this spring, using Salonika as a base, is imperative for a double reason, to engage Germany's forces that otherwise would be free to strengthen the Turks in Asia Minor, and to prevent the conquest of Greece, which would afford the Germans a base for submarine warfare in the Mediterranean. This would imperil the line of communications from England and France to the armies in Asia and Egypt, and to valuable sources of supplies in the Orient, Australia and New Zealand. Moreover, it would leave Italy in a most dangerous position, and might prove an irretrievable disaster to the Allies. Unless an effective Balkan campaign is promptly undertaken, the armies in Asia Minor will soon be abandoned to their fate at the hands of the Germans and Turks and Germany will emerge triumphant at the Indian Ocean.

Granting that the west front is securely maintained as a line of neutralized forces, we will do well to concentrate attention upon the zones of free action in the Levant and the Orient. It is there that the issues of the war will be decided. If we move aggressively in the Balkans we will gain time to strengthen the forces in Mesopotamia and Palestine, sweep to a junction east of Damascus, and thus be able finally to support the Caucasus, which will be found friendly to the Allies, and also to menace the Bosphorus in conjunction with the fleet, under circumstances more likely to achieve success.

To do all this, the Balkan campaign is a first necessity, and that offers the gravest difficulty unless the strength of Germany in the East is divided by having to meet a powerful Japanese invasion in Siberia. It is not conceivable that our Government is so oblivious to all this as to positively restrain Japan from contributing the effective aid that she is providentially in a favored position to give.

enthusiasm and overwhelming valor as the army that is conscious of keeping the foe worried and anxious and expectant with fresh harrowing attacks.

"As long as it is not us and our Allies that control the initiative it is evident that we have serious and urgent things to do so as to change that situation as quickly as we can. That means to go to see the officials and find out what we can do as individuals. Find out whether the things that we are doing are contributing as much to the common good as the same amount of effort expended in some other way or at some other place. Let us not sit down and wonder what more we can do, but go and find out from our local Council of Defense what they would advise us to do. Most of them are earnest local men and women; some are asleep, to put it as gently as possible, and if any of them are indifferent to appeals for advice the fact should boldly be communicated through open letters to the local papers. **We cannot trifle with indifference, with any kind of inefficiency in men of high or low degree, nor with lukewarm patriotism, nor with benignant neutrality of sentiment. The man who is indifferent, who is persistently inefficient, who is sentimentally neutral, is in spirit a German and an enemy. Moreover, he who fails to castigate, to report, to expose, is directly or indirectly doing the Kaiser's work among us, and is identifying himself with the enemy.** While it is Germany rather than the Allies that is able to take the initiative, even on a bluff drive, we cannot afford to trifle; we must push and we must make everyone else get out and push until that condition is radically altered.

"There is another matter of grave importance. We are letting the War Department do all the training of men, and we think only of the training of the 'boys' who are going out to whip the Kaiser. That is well enough, in its way, but we must be chary of letting this be altogether a boy's war. A man of normal health reaches his prime of physical strength at about the age of 40. If he does not abuse himself by dissipation, or allow his physique to run down through lack of proper exercise, he remains in a highly efficient condition for hard work and for military service until he is 60. The German generals in high command are almost without exception men beyond the age of 60. Few of the French or English staff officers are young men. Surely no one will say that the duty of these men in supreme command does not severely strain both nerve and muscle, and call for high qualities of endurance against exposure and fatigue. It is the sign of an age emasculated by pacifism and luxury that we turn this war over so exclusively to the young men, and we see that it has become a war of Teutonic offensive. That is not because the young men are not doing their duty, but because the older men are not doing theirs. They are neither working as hard or as efficiently as they should, nor are they measuring up to the possibilities of actual military service that might be worth a great deal to our country and to its future.

"The military man always makes a double plan. One is for success, the other is to prevent annihilation in the event of defeat. Are we not overlooking the second horn of our dilemma? Are we providing a great army of home defense? Are our able-bodied men training themselves, organizing voluntary regiments, learning how to fight in case the enemy should some time land on our shores? Are we not rather trusting that all will finally come out right on the European battlefields?

"We had time to have prepared for war after the first outbreak of the world calamity, and if we had taken advantage of the opportunity then present the Kaiser would not have played so ruthlessly with the rights of neutrals. In that case the war would probably have ended long ago. Now again we have the chance to prepare for effective defense of our country, and our being prepared will alter the state of mind of our enemies, it might be the thing to turn the tide of the terrible struggle. As we stand we have millions of men perfectly capable, so far as physique is concerned, to become effective soldiers, who would be nothing more than a helpless mob if an enemy should appear on our coasts, as utterly impotent as the millions in Peru when Pizarro flung himself with a handful of armed warriors upon them and conquered their country. Every able-bodied man should be drilling today, even though he uses a dummy gun. Millions of men should organize themselves into regiments and be getting ready for emergencies. If they drilled but once each week, the gain would be enormous. It also would develop the martial spirit, and this

would soon reflect itself upon every phase of our preparation. Its influence would be felt even upon the conduct of the war in Europe and Asia, and would help to turn our defensive operations into offensive movements on many fronts.

"I became so interested in stating my convictions that I realize that, instead of a letter, I have written an article, and you are at liberty to cut out any part that may seem worth while and use it in that form over my signature if you desire.

"The clippings refer in large part to affairs in Spain. I might write a great deal about that, but I will be brief. The important point that I would make is that Spain needs our industrial initiative and assistance at this time, and that, if given, it would do much toward holding her in line as a friend of our cause. If a man like Mr. Schwab would send competent men, engineers

who know the Spanish peoples and their language, and take up and develop the coal fields of Spain, and acquire iron mines and going works, and push them to a high state of efficiency, he would be rendering a tremendous service to this country and to England and France. I wish I could discuss this with him for about 30 minutes. I believe I could show him the great good that he could do in this way. I have studied that situation for a long time, with the advantage of knowing the language, and I am convinced that a great opportunity exists for cementing the Spanish people to us and our cause by powerful commercial and industrial co-operation. This is a matter worthy of serious thought and action. A committee of three or four capable men, versed in the language as well as in the necessary technical matters for ascertaining precisely what opportunities lie open for such an attempt, might lead him to do great things."

The Carnivorous Empire and Its Meaning to the World

[In the following characterization of Germany the Chicago Journal has clearly presented the whole situation. We commend to our readers a careful perusal of this statement. It is a fight to the death, and for three years we have been trying to make our readers see the situation.—Editor Manufacturers Record.]

The dispatches of the last few days give us a new idea of the might of the empire now reaching out from its lair in middle Europe for the mastery of the world. After nearly four years of devastating war, after 2,000,000 of its soldiers have been killed, captured or have died of wounds, this empire is able to mass 1,000,000 men on a 50-mile front, supported by an appalling weight of artillery. It has thrown these men forward with utter disregard of losses, and its recklessness has gained results. The British army, one of the finest fighting organizations in the world and one in which stubborn courage is a race instinct as well as a professional tradition, has been pushed back 16 miles in five days, and even now no one can say that the retirement is ended.

What is the secret of Germany's power? The day of miracles is past. The German is not a superman. Individually, he is rather inferior as a warrior to either Briton or Frank, but collectively he is shaking the world to its foundations. How does he do it, and what must we do to hold those foundations secure?

The answer to the first question is simple, though many still refuse to see it. Germany is the first complete war state of modern times. She thought herself that when the conflict began, and she was wrong; but what was a boast then is true today. Germany has been re-made on the model outlined by Clausewitz and filled in by Luedendorff, the model of the fully developed beast of prey.

For a whole great empire, life has become as simple as for a prowling panther—kill, eat and breed. With the lands gripped by that empire's armies, all civilian luxuries have been swept away. All resources are war resources. All work is war work. Every German able to bear arms is at the front or making supplies for the front. Millions of prisoners and tens of millions of conquered civilians are held in savage slavery, driven to labor with lash and bayonet, worked and starved with a remorseless cruelty never rivaled on Cuban plantations. Meanwhile, evidence is slowly accumulating that polygamy in its grossest form has become a part of Teutonic kultur, and that the women of Pan-Germany, ranked and graded as human breeding stock, are required to produce little soldiers for the Kaiser's next war.

It is the climax of a long and fiendish evolution. Macaulay said that the Prussia of Frederick the Great was "all sting." A French diplomat described Prussia as "an army in possession of a country." Heine said that "the national industry of Prussia is making war." All these words were true when uttered, but they are ten times more true of Prussianized Germany now, for today savagery is guided by science.

The war state, the carnivorous empire, the world tiger—that is the German empire today. Only when we grasp this truth can we see the full measure of our danger. In achieving her predatory perfection, Germany has crushed all those forces and tendencies within her borders which once made possible a peaceful contact

with the rest of the world. The feeble stirrings of German democracy have been stilled. The restraining fears of Teutonic commercialism have been changed from a bridle to a spur. The demand for peace, at best a complaint against hardship and failure, is drowned in an exultant whoop of success.

We are engaged in a fight to the death, and it will be the death of liberty if we falter, or hesitate, or waste our strength in bungling. The resources of the free nations are ample for the crushing of Prussianism, but those resources must be assembled and applied with a sternness equal to that of Berlin. We must dismiss all idea of compromise, all hope of a negotiated settlement, all thought of a German revolution. We must realize that we are at war with a power which counts mercy a weakness and honor a crime, and that we must destroy that power or it will destroy us. We must set free the slaves of Prussianism or ourselves be numbered among them. Once let the general staff of Berlin organize its new conquests as it has organized Germany and partly organized Austria-Hungary, Bulgaria and Turkey, and nothing can stand up against its rush. It is now or never.

Faith in the invincibility of good intentions is the besetting superstition of America. It must give way to faith in the invincibility of good deeds. Not by debates or resolutions, not by anathemas and evidences of moral superiority can the Kaiser be crushed; but by ships and shells and soldiers; by united, intelligent work, by unswerving courage, by the right use of those powers which nature and freedom have given into our hands.

We have lost all the time we can afford to lose. We have accepted all the excuses we can afford to accept. From this time on nothing must count but results, expressed in food and shipping and armament—and expressed at the last in dead Huns.

When the next Liberty Bond Loan is issued, on the anniversary of our entrance into the war, it should be instantaneously oversubscribed. Do not wait until the last moment to subscribe. Be ready on the opening day.

Doing a Patriotic Work.

B. M. HOWER, Gilbert, Ia.

Enclosed find \$4, for which please mail me 100 copies of Rev. Newell Dwight Hillis' "Picture of Germany's War Plans and Her Atrocities in Belgium and France." I think every family in the United States should have one of these pamphlets. I intend to distribute this hundred to the families of my neighborhood.

Will the Concrete Steamship Measure Up to Builders' Expectations?

LAUNCHING OF THE 7500-TON FAITH AT CALIFORNIA YARDS BRINGS WIDE DISCUSSION AS TO OUTCOME OF EXPERIMENT WITH "STONE BOATS" OF LARGE DIMENSIONS.

By ALBERT PHENIS.

Can the concrete ship be relied on to play an important part in winning the war?

This is a question which is being widely discussed, in shipping circles and elsewhere, since the launching of the 7500-ton concrete ship Faith at Redwood City, Cal., three weeks ago.

Assurances have been given by the builders that the 54 concrete vessels of this type and size tentatively authorized by the Shipping Board can be built in 18 months, an average of three a month.

Rapid construction is certainly a feature to rivet attention, and the successful launching of the Faith within four months from the time the first concrete was poured is a conclusive demonstration of the time-saving element. Work on this ship was commenced September 1, 1917; the first concrete was poured October 31 and the last February 26, and on March 14, as narrated in previous issues of the MANUFACTURERS RECORD, the vessel slid from the ways. With the use of forms built in sections and bolted, so that the forms may be stripped from the concrete a section at a time, it is figured by the builders that 75 per cent. of the lumber may be saved for reuse on succeeding boats, effecting a saving both in time and in costs.

Added to speed in construction, the vital factor in the Allies' shipping problem, is low cost. It is stated that concrete ships can be built at about the present cost of wooden vessels. Further advantages are that concrete in abundance is everywhere available; that concrete construction does not interfere with steel shipbuilding; that skilled labor is not drawn upon, and that the cost of a plant for building concrete ships is only one-twentieth as great as that required for a steel shipbuilding plant.

The builders of the Faith, the San Francisco Shipbuilding Co., express entire confidence that the boat will meet every test, and members of the Shipping Board have spoken with enthusiasm of the part the concrete ship may play in meeting the urgent demand for greatly-increased tonnage at the earliest possible day. Five ships of the Faith type have been ordered by the Emergency Fleet Corporation, it is understood, with some fifty others to follow in case the first are pronounced a success.

In many quarters there is a disposition to withhold judgment until the new boat has been subjected to practical tests.

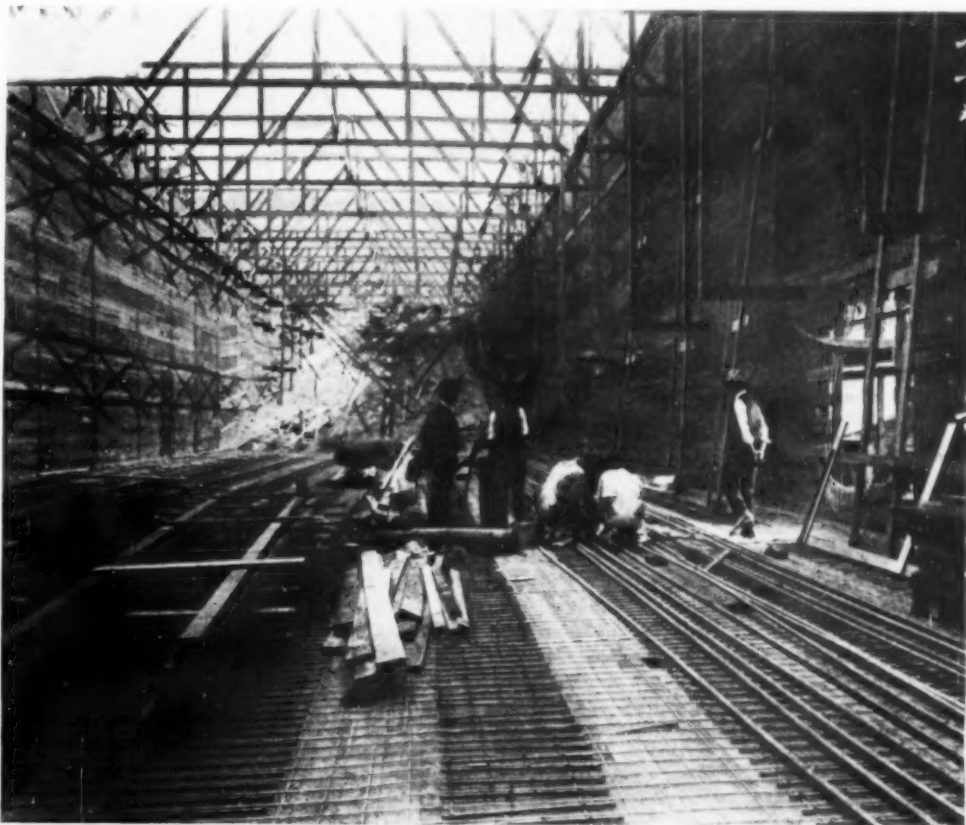
It is expected that the Faith will be sent on a trial trip to the Orient and return as soon as it has

for half a century or more, although never having been turned out in considerable numbers, and the largest boat of the kind heretofore launched was of only 900 tons. Opinions as to the feasibility of the larger boat differ widely, one view being that it will be too "loggy" for safe and convenient maneuvering, and that it may not be able to stand up under the pounding of the sea.

An old sailor is quoted in a New York newspaper as saying in a discussion with a mate:

"I've 'laid-to' for hours at a time in a rough sea with the bows pounding down on the rollers and wondered how long even heavy planking would stand it. And I'll bet that concrete will shiver and crack and crumble up like putty."

"Nothing of the sort," said his companion. "That



INTERIOR VIEW OF CONCRETE SHIP FAITH, SHOWING BASKET-WORK OF WELDED STEEL MESH AND IRON BARS, ALL WELDED TOGETHER.

been completed and equipped. This will provide the practical test required.

Meanwhile, the feeling has been freely expressed that concrete ships of the larger type are as yet only in the experimental stage. Concrete boats have been known

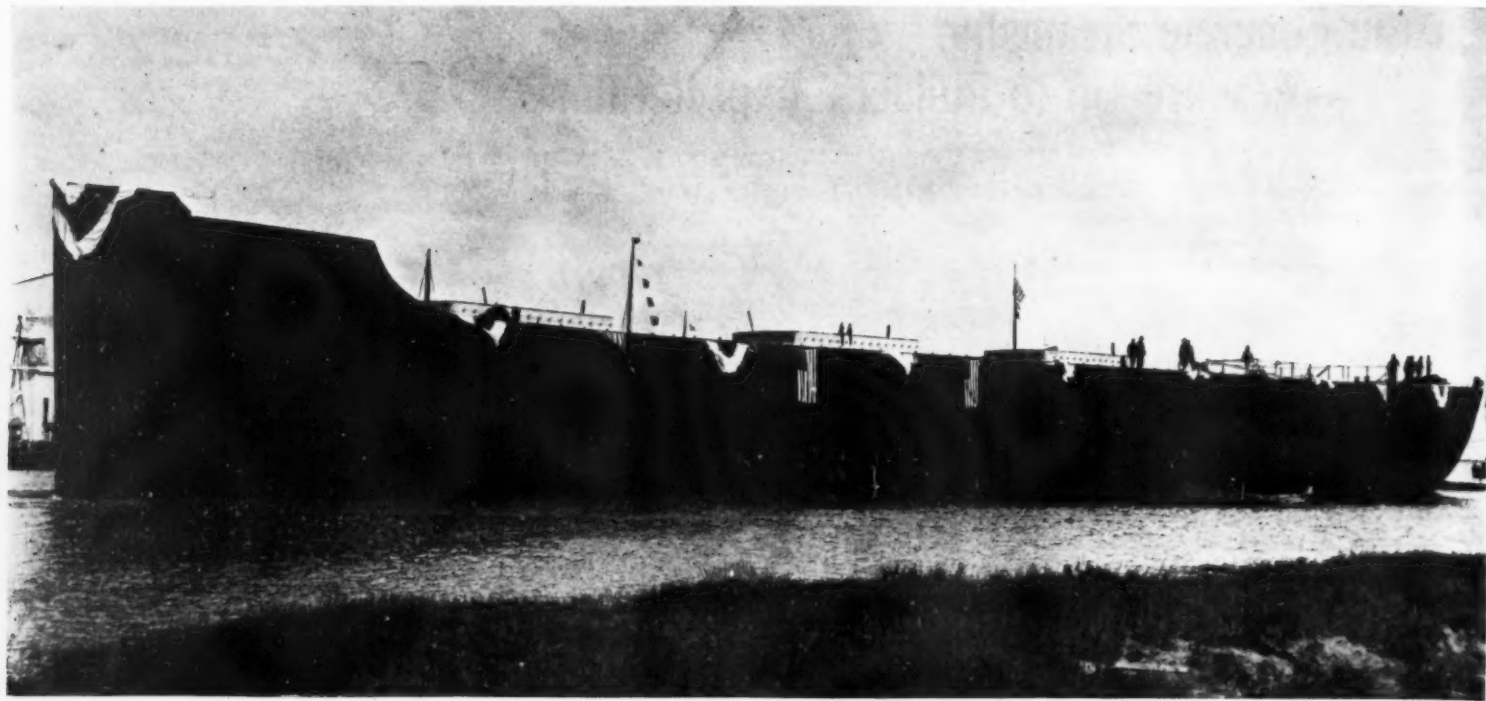
ship's got a steel net work over every inch of her frame and every one of the meshes, none of them more than three inches across, filled full of the best Portland cement, clinging to it just as that fireproof wire-glass door is tied together. In fact, that's just the way the



COMPLETED HULL OF CONCRETE SHIP FAITH ON WAYS, AT SAN FRANCISCO SHIPBUILDING YARDS.



BOW VIEW OF CONCRETE SHIP FAITH JUST BEFORE BOAT WAS SIDE-LAUNCHED AT REDWOOD CITY, CAL.



THE FAITH, FIRST OF PROPOSED FLEET OF CONCRETE SHIPS.

On data furnished by A. Macdonald, San Francisco, Western Engineering gives this description: "The vessel is 336 feet 3 inches over all, the length between perpendiculars being 329 feet. The beam is 44 feet 6 inches and the molded depth is 31 feet. The draft is 24 feet. With this draft the carrying capacity will be 5000 tons. The empty hull draws 9 feet of water. The concrete in the hull is from 4 to 5 inches thick. There are five concrete bulkheads. The bow is reinforced with a three-eighth-inch steel plate. The reinforcing steel used in the hull weighs 550 tons. The main deck is of wood resting on concrete stringers. There are three cargo hatches. About 2,000,000 feet B. M. of lumber was used for the forms, of which about 10 per cent. can be used again, assuming a similar design. [Note: Builders claim that 75 per cent. of lumber in forms may be reused.]

"A waterproofing compound was used in mixing the concrete. A heavy black asphaltic paint was used on the outside of the hull.

"The estimated cost of the empty hull is \$450,000, and of the completed vessel \$890,000. The vessel will be equipped with reciprocating engines developing 1700 horse-power. It is expected that the speed will be ten knots per hour. The vessel will be equipped and ready for service about June 1."

concrete is tied in, and it'll work just the same way against the sea that the glass does against fire. I'd feel perfectly safe in going to sea in her."

An engineer's viewpoint of the concrete ship is to be found in a paper read not long since by T. R. Ferguson, engineer Portland Cement Association, at a meeting of the Delaware River branch of the American Society of Marine Draughtsmen. In the course of his address Mr. Ferguson said:

"In designing a ship, it is assumed to be supported in two ways, first, for hogging, and second, for 'sagging.' That is, the wave in one instance is supposed to support the ship in the center, with the ends unsupported. In the second case, the ship is supposed to be supported at the bow and stern on the crest of the waves, the trough of the wave being under the center of the boat. These waves are supposed to have a height equal to one-twentieth of the length of the ship. Considering the ship as a beam, this produces alternate tensile and compressive stresses in both the top and the bottom of the structure. This governs the design of the ship as a longitudinal girder.

"The ship must also be designed so that the sides and bottom will resist hydrostatic pressure. For this system of transverse members called frames is provided. The accepted method of designing the frame is to consider the frame as a ring and to use the ring formula. This corresponds to the elastic-arch theory. Even with the supports fixed, the design of an elastic arch is not simple. With the concrete ship nothing is fixed. We must go through a long process to determine the position of the neutral axis in different parts of the frame, under the various conditions of external force that must be considered.

"Around the frame is the shell. This has two functions to perform besides the primary one of keeping out the water. First the side may be considered as a sort of floor-slab, the load being the hydrostatic pressure that is distributed to the frames or transverse members of the ship. This is a comparatively simple matter, for the frames can be spaced to obtain the desired span. In addition to this, however, the shell acts in the same way as the web of a box-plate girder. The analogy can be carried further, the boat-frames can be considered as the stiffeners, and the deck and bottom of the boat as the flanges. The most important factor in designing the shell is the shear at the quarter-points. In this connection some interesting problems must be considered. For instance, do the frames increase the shear-section, and if so, to what extent? Does the bending of the ver-

tical reinforcement of the shell into the bottom and deck anchor these rods sufficiently to produce the same effect as rigid attachment to the longitudinal reinforcement? Probably the most important question is the effect of alternate tensile and compressive stresses in the longitudinal members.

"Let us now consider some of the advantages of the concrete ship. Such consideration must be governed by present conditions, although some of these conditions will continue after we have won the war.

"The material to be used in building concrete ships is plentiful and widely distributed. It is not used for ships now being constructed, so there will be no interference

with present programs. The class of labor to be used for the concrete ship is different from that used on either the wooden or the steel ship, and is mostly unskilled. Above all, the speed with which concrete ships can be built is of the utmost importance.

"The maintenance cost of a concrete ship will be small, although the idea, held by many engineers, that barnacles will not adhere to concrete is erroneous. This, however, can probably be overcome, and, at any rate, conditions will not be worse than for a steel ship.

"The original cost of a concrete ship will probably be considerably less than steel or even wood. The resistance of concrete to fire is an important consideration.



STERN VIEW OF CONCRETE SHIP FAITH ON LAUNCHING CRADLE, SHOWING PROPELLER SHAFT BOXING.

The shape of steel and wooden ships is governed to a considerable extent by the characteristics of the material used. With concrete, however, we can make the bow and stern to conform to any conditions. The steel in the concrete ship can be placed where it will do the most good, whereas in both the steel and the wooden ship the efficiency of the material is often reduced considerably by the necessity of making joints.

"One of the objections frequently raised against concrete for ship construction is that the weight of the material is too great. As a matter of fact, the weight of

the hull of a concrete ship will be little, if any, more than that of a wooden ship of equal carrying capacity. The disintegrating effects of salt water on concrete is another objection. This, however, can be prevented by proper methods of protection. The possibility of corroding the reinforcing steel is more serious. The investigations of marine structures conducted by R. J. Wig and myself showed the danger of cracking where reinforced concrete is exposed to moist sea air, provided ordinary construction methods are followed. This, too, can be overcome by observing proper precautions."

Vast Potash Deposits in Searles Lake Made Available by Interior Department Decision

[Special Correspondence Manufacturers Record.]

Washington, D. C., April 2.—Of no small amount of importance to the potash industry in this country, and especially in connection with the production of fertilizer material for the South, is a decision which has just been handed down by the Department of the Interior concerning mineral claims in the Searles Lake potash deposits in California.

Some account of this vast deposit of potash, the largest known in the United States, was given in an article in the MANUFACTURERS RECORD some time since. It is sufficient to repeat here that if successful means for extracting the potash are found, the yields from Searles Lake will render this country free from dependence upon Germany for many years to come; the estimated supply at Searles Lake in crystal and brine form having been placed variously as large enough to meet our normal consumption for the next 50 to 100 years.

The Interior Department decision was made in the case of the United States versus the California Trona Company. Among the charges against the latter company in its application for mineral lands in Searles Lake was that the title claimed was not bone fide, it being alleged that the acts of the applicant company had been for the purpose of securing title to the lands in the interest of non-resident aliens.

But this and other charges were dismissed by the Interior Department, which indicated in its decision that the company could obtain a final certificate of issue upon payment of the purchase money.

Of special interest, however, is the fact that the California Trona Company had earlier filed and executed relinquishment to right and title to other than 2500 acres of land in the chief deposit area, holding in addition only a limited number of claims outside of the crystal body.

This means that some of the most valuable portions of the lake will be left open for lease by other companies. With the opportunity thus afforded, it is expected that additional capital, and that all American, will be engaged in the production of potash at this most important deposit. The effect also will be to stimulate a proper amount of competition and thus to prevent a monopoly, although recent legislation regarding potash gives the President power to regulate prices during the period of the war. It is known that several American companies are desirous of beginning operations at Searles Lake, and that they were awaiting this decision preliminary to filing applications for leases under the opportunities which will now be afforded in accordance with the provisions of the Potash Leasing bill passed by Congress October 2 of last year.

The following brief account of the three principal areas of potash-producing potentialities at Searles Lake, as taken from the Interior Department's decision, indicate the opportunities offered:

"Searles Lake comprises three areas, commonly designated as (a) the central crystal body, about 12 square miles in area and occupying the center of the basin; (b) the second zone or first mud belt, distinguished from the area first described by large surface deposits of mud, and (c) the third zone or second mud belt, which is covered with mud and sand, and has outcropping roofs in the form of solid trona and borax.

"The central crystal body is from 60 to 90 feet deep, the solids of which from a hard porous mass of crystals. On the surface and for a depth of from 10 to 20 feet the crystals are sodium chloride, over 97

per cent. pure. The stratum below this is made up of layers of halite, hanksite, borax and trona. The commercially valuable minerals obtainable therefrom are potash, soda and borax. The second and third zones contain the same crystallized salts, mixed with impurities of mud and sand and are covered with alkali. The interstices between the crystals are filled with a brine strongly impregnated with the minerals named."

Embargo on Foreign Graphite Will Stimulate South's Production.

Washington, D. C., March 30—[Special.]—The domestic production of graphite is expected to receive a material impetus by the decision of the Government to restrict the importation of graphite from Ceylon and Madagascar. A three months' embargo has just been placed upon the foreign plant, and the imports for the remainder of the year are to be restricted to 5000 tons, under license. The annual receipts of graphite from Ceylon and Madagascar are about 25,000 tons, but the stocks now on hand are considerable and represent a margin of safety.

Alabama is now producing the principal supply of domestic graphite, and the committee on mineral imports and exports, representing the Shipping, War Trade and War Industries boards, assumes that production will be stimulated by the new regulations. The Alabama producers are said to be confident that this will be done.

A great improvement in the standardization of domestic graphite as to size and purity will be necessary in order to make the American product of flake graphite acceptable to the makers of graphite crucibles. It developed at the recent conference of importers, manufacturers and producers, when the proposed program was discussed, that some of the manufacturers are prejudiced against the domestic supply, as the product has been irregular in the past. In the average formula it has been customary to use but little more than 20 per cent. of the native graphite, the remainder being of the Ceylon importations. However, satisfactory crucibles have been made entirely from domestic graphite, and it is believed by the Government officials and members of the trade that a standardization of the product by the producers will result in the future elimination of the overseas imports.

It has been suggested that the Alabama Graphite Association act as selling agents in the Southern field, and hold a strict inspection of all graphite production before it passes to the manufacturers, guaranteeing the supplies as up to the grade and analysis. This plan, it is believed, would secure the desired standardization and result in a general acceptance of the domestic graphite in lieu of the foreign stocks.

Automobile Plant for Birmingham.

Automobile light cars and three-quarter-ton trucks will be manufactured at Birmingham in a plant which the Preston Motor Car Co. expects to complete within 60 days and to employ several thousand skilled men. A seven-acre site has been purchased with buildings which will be remodeled for the company's purposes. This is a new company organized with the following officers: Charles E. Dexter, president; P. L. Sturkey, vice-president; E. E. Cobb, secretary; Niles G. Parker, treasurer.

Enlarging Facilities at Mobile.

Mobile, Ala., March 28—[Special.]—A marine railway will be built on Pinto Island, opposite Mobile, under joint contract between the Emergency Fleet Corporation of the United States Shipping Board and the Henderson Shipbuilding Co. The first unit will be a set of ways of the Crandall type, designed to lift merchant steamers of 3500 tons, with an auxiliary enabling the docking of 5000-ton vessels. Work will begin at once and will be completed in four months. I. W. Hubbard, civil engineer of the Emergency Fleet Corporation, has approved the location. The expenditure will be approximately \$100,000.

The dredging of the Chickasaw, to enable ocean-going vessels to reach Chickasaw, the shipyard of the United States Steel Corporation, will probably begin later this week. The Atlantic, Gulf & Pacific Company has been awarded the contract. The work will require several months, as the creek, while deep, requires considerable widening. A large turning-basin is to be provided.

The Alabama Drydock & Shipbuilding Co. today in annual meeting increased its capital stock from \$500,000 to \$600,000 to provide for general improvements and extensions. The improvements include a 5000-ton drydock, recently announced, and upon which preliminary work recently began.

Tanker Fleet Ordered.

The Fleet Corporation has contracted for a large fleet of tank steamers to transport oil from the Mexican fields to ports along the Atlantic seaboard and to supply the demands of the Allies.

Second only in importance to the needs of the navy, which includes many oil-burning vessels, the demand for petroleum by the emergency fleet, built and building, will be large. Many vessels now under construction will be oil burners.

Shipbuilding Notes.

The Darien (Ga.) Shipbuilding Co. has been organized to build a plant for constructing small wooden ships.

Doullut & Williams, New Orleans, plan to build a shipyard on the proposed \$2,600,000 municipal industrial canal.

The Carolina Shipbuilding Co., Charleston, S. C., has been incorporated with \$100,000 capital and is represented by Philip H. Gadsden.

A. F. Dantzler, H. H. Colle and B. G. Boag, Pascagoula, Miss., have incorporated the Gulf Shipbuilding Co. with a capital of \$100,000.

It is reported that the National Shipbuilding Co., Orange, Tex., is planning to establish a shipyard for constructing both wood and steel vessels at New Orleans.

The Concrete Ship & Barge Corporation, L. C. Howard, manager, New York, is considering the establishment of a plant for building concrete ships at Biloxi, Miss.

Last week a concrete barge was launched at Anchorage, near New Orleans, by J. W. Thompson. This vessel will be used for transporting gravel, and another of the same type is to be constructed, the forms having already been prepared.

An expenditure of \$100,000 is planned by the Tampa (Fla.) Dock Co. for shipyard additions providing facilities for the installation of boilers, engines and other equipment in wooden and steel ships. A dock will be constructed, cranes will be installed and the harbor will be dredged.

Government contract for building seven towboats has been awarded to the Savannah (Ga.) Engineering & Construction Co. These vessels will be of wood construction, 150 feet long, for completion within one year. They are expected to be used for coastwise traffic between New York and Southern ports.

The Macreneriss enterprise, mentioned last week, has been chartered as Macreneriss Shipbuilding Corporation of Tarpon Springs, Fla., capitalization being \$50,000, to establish a shipyard for building coasting schooners. Officers have been elected as follows: E. Macreneriss, president and general manager; Nic Macreneriss, vice-president; J. Toupouzis, secretary-treasurer.

South Not Only Feeding Itself, But Largely Contributing to Others Besides

Concerning food production in the South, Mr. I. N. McCollister of Many, La., president Louisiana Division Farmers' Educational and Co-operative Union of America, sends the MANUFACTURERS RECORD an article, with the following explanatory letter:

"There has been so much said in the past by orators about the South feeding itself that I thought I would send you some reliable figures on this important subject. These figures were taken from the report of the United States Department of Agriculture, and were compiled for me by Mr. R. D. Bowen of Paris, Tex., who is one of the best-known citizens and most progressive farmers in the Lone Star State, and by Mr. Arthur W. Simpson of New Orleans, La., who is a well-known citizen and a prominent member of the New Orleans Cotton Exchange and an authority on the cotton question.

"These figures show that the South is already feeding itself.

"While the South, as I have already stated, is feeding itself, we realize that the South must produce a greater supply of food and feedstuffs this coming year, and we are preparing to do so.

"Another significant fact is that while the South comprises one-third of the States of the Union, we do not comprise one-third of the population, and we furnished one-third of the food crops produced of the 1917 crop and 42 per cent. of the agricultural crop productions!"

Mr. McCollister's figures and some comments are given herewith.

By I. N. MCCOLLISTER, Many, La.

Much is being said in the daily and weekly papers, magazines and by writers and by speakers and by officials in and from Washington about the South feeding itself.

The United States Agricultural Department has given the value of agricultural products of the entire nation for the year 1917 as being in round numbers \$19,500,000,000. These figures include nearly \$6,000,000,000 value of the animals and animal products and over \$13,500,000,000 being the value of other agricultural products.

Mr. Arthur W. Simpson, who is recognized in New Orleans as an authority on statistics and a well-known member of the New Orleans Cotton Exchange, and also on the Commission of the New Orleans Public Belt Railroad, has furnished the following analysis and correctly apportioned to each State and each section the proper pro rata of the figures furnished by the United States Department of Agriculture:

TEN NEW ENGLAND STATES SHOWING VALUE OF FARM PRODUCTS .091 PER CENT. OF UNITED STATES PRODUCTION IN 1917.

	Rank.
Maine.....	41
New Hampshire.....	42
Vermont.....	43
Massachusetts.....	44
Rhode Island.....	45
Connecticut.....	46
New York.....	47
New Jersey.....	48
Pennsylvania.....	49
Delaware.....	50
Total.....	\$1,240,189,000

ELEVEN WESTERN STATES SHOWING VALUE OF FARM PRODUCTS .092 PER CENT. OF UNITED STATES PRODUCTION IN 1917.

	Rank.
Montana.....	35
Wyoming.....	36
Colorado.....	37
New Mexico.....	38
Arizona.....	39
Utah.....	40
Nevada.....	41
Idaho.....	42
Washington.....	43
Oregon.....	44
California.....	45
Total.....	\$1,246,723,000

ELEVEN MIDDLE WESTERN STATES SHOWING VALUE OF FARM PRODUCTS .396 PER CENT. OF UNITED STATES PRODUCTION IN 1917.

	Rank.
Ohio.....	1
Indiana.....	2
Illinois.....	3
Michigan.....	4
Wisconsin.....	5
Minnesota.....	6
Iowa.....	7
North Dakota.....	8
South Dakota.....	9
Nebraska.....	10
Kansas.....	11
Total.....	\$5,393,234,000

SIXTEEN SOUTHERN STATES SHOWING VALUE OF FARM PRODUCTS .42 PER CENT. OF UNITED STATES PRODUCTION IN 1917.

	Rank.
Maryland.....	31
Virginia.....	32
West Virginia.....	33
North Carolina.....	34
South Carolina.....	35
Georgia.....	36
Florida.....	37
Tennessee.....	38
Kentucky.....	39
Alabama.....	40
Mississippi.....	41
Louisiana.....	42
Texas.....	43
Oklahoma.....	44
Arkansas.....	45
Missouri.....	46
Total.....	\$5,710,732,000

Total crop values.....	\$5,710,732,000
Less value cotton crop.....	1,517,558,000
	\$4,193,174,000

Average, 34.7 per cent. of value of United States production in 1917 versus comparative production of the
10 New England States.....\$1,240,189,000
11 Western States.....1,246,723,000
21 States.....\$2,486,912,000
Which includes New York, Pennsylvania, California. Average, .0915 per cent. of value of United States production in 1917.

The above is indeed interesting, and will doubtless surprise even those of the South who are best informed in regard to what the South has actually done in the way of increasing its production of food and feed supplies since 1915.

In 1915 the South produced in round figures \$2,500,000,000 of agricultural products; in 1916, \$3,700,000,000 and in 1917, \$5,700,000,000.

From the above it will be seen at a glance that the South is not only already "feeding itself," but is really overfeeding itself, and the records show we are shipping considerable of our food and feed supplies to our sister States.

In fact, as Mr. Simpson so aptly remarked to a friend, "the above figures show that the New England and the Pacific Coast States would go hungry were it not for the food production of the Southern States and Middle Western States."

While the above figures are irrefutable and are extremely gratifying in regard to the showing made by the South in producing food and feedstuffs, still our farmers must yet doubly exert themselves to still increase the production of food and feedstuffs during the coming year, so that we cannot only supply some of our sister States, which the above figures show are incapable of supporting themselves in agricultural products, but we must be in a position to ship more food and feedstuffs to our soldier boys abroad and the Allies.

In other words, not only will the friends of the South, but even our critics will doubtless be surprised at the above table showing that the 16 Southern States in food production alone furnished in 1917, 34.7 per cent. These figures do not include the cotton crop. Add the cotton crop, and the quota furnished of agricultural products by the South is 42 per cent. While the 16 Southern States comprise one-third of the total States, the quota furnished in agricultural products is in excess of one-third, while the population of the Southern States is not one-third of the total.

To Increase Syrup and Rice Production in Louisiana.

New Orleans, La., March 27—[Special.]—Greater development of the Louisiana cane syrup business is indicated by verified reports that the American Sugar Refining Co. has decided to establish a syrup canning plant at Chalmette which will operate in conjunction with their already immense sugar and cooperage plants at that point near this city. A large purchase of syrup and molasses tank cars is said to have been made by the company to be used exclusively in connection with their New Orleans syrup project.

At the same time come reports of the establishment by several syrup factories of canning departments so as to can and distribute Louisiana cane syrup direct from the plant of production. Besides these additions of canning factories, these syrup houses are also being thor-

oughly overhauled and new and more machinery installed.

Something like \$2,000,000 or \$3,000,000 were spent this year for new mules and horses for sugar plantations. In the sugar industry, however, the mule and horse are going out of style, as in other agricultural industries, and therefore the purchases of tractors were heavier this year.

It is calculated that Louisiana will produce approximately 25,000,000 bushels of rice this year. The acreage in rice now, according to authentic estimates, is about 600,000 acres. Railroad representatives interested in the rice belt state that there will be a 40 per cent. increase in the acreage in the parish of Calcasieu and an increase of from 20 to 25 per cent. in the rice belt as a whole.

In some of the most Southwestern Louisiana rice parishes the planters are planting over the canal levees so as to leave no land in the rice district idle this year.

A new 2400-barrel-a-day mill will be built at New Iberia, which is the heart of the famous Bayou Teche Honduras rice country. This is the first mill to be built in this part of the belt. From the rice in sight now it counts on operating about eight months in the next milling season.

A very encouraging characteristic of the situation in the rice parishes is the fact that the use of tractors on rice farms has increased more than 50 per cent. since last season.

Mississippi Farmers Urged to Grow More Corn.

Jackson, Miss., March 28—[Special.]—Despite the fact that Mississippi raised 12,000,000 more bushels of corn last year than ever before in its history, the State is now importing corn for feed, according to a statement issued by R. S. Wilson, State agent in farm extension work, who has just issued an appeal to the farmers to increase their acreage to corn.

In this connection Mr. Wilson's statement says: "Owing to the unfavorable season, our small-grain crops are the smallest in years. So we must grow more corn in order that it may be substituted as far as possible for the small-grain crops. It is also important that we grow a liberal acreage of hay, peas, soy beans, velvet beans and all other feed crops.

"Mississippi has never grown her own corn. Our 1917 crop was a splendid one, being larger by 12,000,000 bushels than any previous one. However, we will import far more corn this year than we exported during the winter. It is absolutely imperative that we at least grow enough corn for our own needs this year, as there is small probability of our importing any corn next year."

Louisiana's Strawberry Crop Bringing High Prices.

New Orleans, La., March 28—[Special.]—The Louisiana strawberry crop will reach approximately 1,000,000 crates of 24 quarts each, valued at about \$3,500,000, 20 per cent. less than normal production. The acreage in strawberries this year is 12,500 acres, as compared with a 1917 acreage of 15,000 acres. Though smaller than previous crops, it will bring larger profits to the growers. This is the first time in the history of the industry when the first crop or picking has been so prolific and has brought such good prices. Favorable weather and early spring have been the conducting causes of the very satisfactory present situation. The second crop or picking, if warm weather and rain are had, will begin in the latter part of April and continue through May. This will put Louisiana strawberries on the national markets at the same time as those from competing sections. Therefore, it is believed that a very considerable portion of the second crop will be preserved and some made into soda-fountain syrups at the factories recently established in the district to handle the surplus crop. The first crop is generally lost, but not so this year. Shipments are well in advance of last year this time. The crate factories are working day and night. Labor is scarce, both in the fields and at factories.

**BUY LIBERTY FOR YOURSELF AND
YOUR COUNTRY BY BUYING
LIBERTY BONDS.**

How Business Can Help the War To Be Discussed at Chicago Meeting

The sixth annual meeting of the United States Chamber of Commerce will be held at the Auditorium, Chicago, April 10, 11 and 12. Representatives of more than 1000 commercial organizations, with a combined membership in excess of 500,000 business executives, will attend. The part that business is to play the second year of our entrance into the war will be considered, under four chief headings: (a) Financing the war, (b) railroads and highway transportation, (c) ships and shipping, (d) organized control of industry.

Prominent among those who will deliver addresses are: The Earl of Reading, British Ambassador Extraordinary and Plenipotentiary on Special Mission; Secretary of the Navy Daniels; Secretary of the Interior Lane; Edward N. Hurley, Chairman of the Shipping Board; Alba B. Johnson, president of the Baldwin Locomotive Works; Edwin Carry, Director of Operations, U. S. Shipping Board; John F. Wallace, chairman of the Chicago Terminal Commission; Roy D. Chapin, president of the Hudson Motor Car Co. and Chairman of the Highway Transport Committee of the Council of National Defense; Theodore N. Vail, president of the American Telephone & Telegraph Co.; Charles A. Hinsch, president of the American Bankers Association, and others of equal standing and authority.

Previous to the annual meeting, which opens Wednesday morning, a meeting of the National Councillors will be held Tuesday afternoon, when various committee reports will be made.

At the afternoon session Wednesday, Government officials will outline the Government's position in regard to: (a) Government organization in relation to war, (b) railroads, (c) finance, (d) shipping.

Edward N. Hurley, Chairman of the United States Shipping Board, will give the facts about shipping. The National Chamber's activities in relation to the foregoing will be presented in ten-minute addresses by Waddill Catchings, chairman of the National Chamber's war service committee; E. A. Filene, chairman of the National Chamber's war shipping committee; Harry A. Wheeler, chairman of the committee on railroads; Wallace D. Simmons, chairman of the committee on war finance.

Thursday, both morning and afternoon, will be held discussions in group sessions of the subjects suggested on Wednesday afternoon and evening.

The first group, Waddill Catchings, chairman of the war service committee of the Chamber of Commerce, presiding, will discuss Government organization relation to business in war. Following an address by the chairman, George N. Peek, Industrial Representative of the War Industries Board, will speak on "How shall we keep industry going and carry on the war?" followed by William H. Vandervoort, member of Official Council of Employers and Employees.

Finance will be taken up by the group under the leadership of Charles A. Hinsch, president of the American Bankers Association. The discussion will be divided between trade acceptances and the effect of Government financing in industry. Lewis E. Pierson, chairman of the board of directors of the Irving National Bank, and Wallace D. Simmons, president of the Simmons Hardware Co., will discuss trade acceptances. Thomas N. McCarter, president Public Service Corporation of New Jersey, and David Forgan, president of the National City Bank, Chicago, Ill., will be the speakers on the effect of Government financing on industry.

The group discussion of railroads and highway transportation will be under the leadership of Harry A. Wheeler, chairman of the National Chamber's committee on railroads. Alba B. Johnson, president of the Baldwin Locomotive Works, will speak on motor power. John F. Wallace, chairman of the Chicago Railway Terminal Commission, will discuss terminals. "Car Supply" will be the subject of Edwin Carry, Director of Operations, U. S. Shipping Board. Roy D. Chapin, Chairman of the Highway Transport Committee of the Council of National Defense and also prominent in the automobile world, will present the cause of highway transportation.

"How Can We Get More Ships in the Next Six

Months?" will be the subject of the shipping group under the leadership of E. A. Filene, chairman of the war shipping committee. Following addresses by the chairman and Judge George Gray of Delaware there will be an explanation of what Rochester, N. Y., is doing by Henry T. Noyes. This will be followed by a general conference to reach a consensus of opinion on:

(a) How may helping the shipbuilders best be made the business of local organizations? (b) Should business men help the transference of skilled employees to shipyards? (c) What can the local business organizations do in helping to provide adequate transportation facilities for the shipworker? (d) What can the local organization do to provide adequate housing facilities for the shipworker—for the next six months—or for the time after six months? (e) What can the local business organization do to show the shipworker its high estimate of his work and thus encourage him to his greatest effort? (f) What can the local business organization do to make two or three shifts in the shipyards possible? (g) What assistance from the business man does the shipbuilder require?

Friday morning there will be a general discussion leading to action upon the resolutions presented.

Iron and Steel Prices for the Quarter Ending June 30.

Washington, D. C., March 28.—[Special.]—Prices on ore, coke, steel and steel products will remain the same until July 1 as were in control under the previous prices fixed to hold until April 1. From April 1 to July 1, however, the maximum price of basic pig-iron was ordered reduced from \$33 to \$32 per gross ton, and for scrap steel from \$30 to \$29 per ton.

These prices represent the result of recommendations earlier made by the price-fixing committee of the War Industries Board, which received the approval of President Wilson on March 26.

Under the provisions of the revised orders, new contracts calling for delivery of any of these products will specify a price only with the full understanding that any authorized Government agency may change it.

Preliminaries leading to the price revisions arrived at were taken up at a meeting of about 20 representatives of the industries concerned, with Messrs. Baruch, Replege, Brookings and others representing the Government. It has been ascertained by the MANUFACTURERS RECORD correspondent that the new prices were reached without any particular opposition, although a few of the industrial representatives held out mildly for somewhat higher figures. In general, improved conditions in steel production are reported. This is notably the case in plate production, which has shown marked increase in March over February, due for the most part to improvements in conditions with respect to fuel supply and transportation.

The details of the revision in prices which are to stand until July 1 are contained in the following announcement authorized by the Council of National Defense:

"The President today approved the recommendation of the price-fixing committee of the War Industries Board that the maximum prices heretofore fixed by the President upon the recommendation of the board upon ore, coke, steel and steel products, subject to revision on April 1, 1918, be continued in effect until July 1, 1918; from April 1 to July 1, however, the maximum price of basic pig-iron be reduced from \$33 to \$32 per gross ton, and that the maximum price of scrap steel be reduced from \$30 to \$29 per gross ton.

"No new contracts calling for delivery of any of said commodities or articles on or after July 1, 1918, are to specify a price unless coupled with a clause making the price subject to revision by any authorized United States Government agency, so that all deliveries after that date shall not exceed the maximum price then in force, although ordered or contracted for in the meantime.

"It is expected that all manufacturers and producers will observe the maximum prices now fixed."

A statement by Judge Gary, chairman of the committee on steel and steel products of the American Iron

and Steel Institute, after announcing price-fixing as given in the foregoing Washington dispatch, says:

"It should be explained that it is the understanding of this committee that the reduction of \$1 per gross ton is made on all prices of scrap, both base grades and differentials, the effect being to reduce by \$1 per gross ton all prices shown in the differentials recommended by this committee under date of February 21, 1918, and appearing on pages 14-A and 14-C, inclusive, of the list of maximum prices of iron and steel products published by the American Iron and Steel Institute."

Slight Improvement Noted in Coal and Coke Production.

Production of bituminous coal increased slightly during the week ended March 23, according to the weekly report of the Geological Survey issued March 30. The total production (including lignite and coal made into coke) is estimated at 10,972,000 net tons. The average production per working day is estimated at 1,828,000 net tons, as compared with 1,729,000 net tons during March, 1917.

The total production of bee-hive coke is estimated at 635,000 net tons, or 106,000 tons per working day, a decline in average daily production of 1000 tons compared with week of March 16. The production in the Connellsville and Lower Connellsville districts increased from 335,122 tons during the week March 16 to 339,580 tons.

The ratio of coal production to present capacity declined from 70.6 per cent. in the week ended March 9 to 66.3 per cent. for the week of March 16, due in part to transportation difficulties in the East and in part to absence of orders for coal in the Far West.

The lack of demand for coal in the Southwest, Rocky Mountain and Pacific Coast States was even more noticeable than during the previous week. Mines in these States reported a loss of 275,236 tons, due to "no market," compared with 201,006 for week ended March 9.

The reports of conditions in the Connellsville and adjacent coke regions for the week ended March 23 show continued improvement. Fifty-seven of the principal operators in the Connellsville, Greensburg and Latrobe districts reported a production of 273,420 net tons, or 65.6 per cent. of their full-time capacity, as compared with 64.1 per cent. during the preceding week. Losses due to shortage of cars and labor slightly declined. The same operators produced 152,400 net tons of coal.

The ratio of production to capacity of by-product coke plants during the week ended March 23 (87.8 per cent.) was the same as in the previous week. The losses on account of lack of coal represented 6.4 per cent. of capacity, the same as the previous week.

Kentucky, Maryland, Tennessee and Washington increased their production to maximum capacity. The lowest ratio reported, in New Jersey, was 79.6 per cent., an improvement over 76.5 per cent. in the previous week.

Indiana was the only State reporting decrease in production during the week ended March 23 due to lack of coal.

Industries as Well as Soldiers Benefited by Texas Dry Laws.

Houston, Tex., March 26.—[Special.]—The State law passed by the Texas Legislature several days ago, prohibiting the sale of intoxicating liquors in zones within 10 miles of any United States army cantonment, camp or shipyard, and which virtually makes Texas a dry State, is welcomed by the industrial concerns of the Lone Star State. It is believed that the law not only will eliminate bootlegging to soldiers, which was the ostensible purpose, but that it will insure increased efficiency in the shipyards now handling Government contracts, and that it will materially aid in developing the petroleum resources of the State.

Most of the cities located near the shipyards handling Government work are wet towns, and the large oil fields of Texas all are located close to wet cities. One of the big sources of losses to oil companies is the liquor business, as junked holes and damaged machinery, as well as personal damage suits, are directly traceable to over-use of liquor in hundreds of instances. The new law will absolutely prohibit the sale of liquor in all zones within 10 miles of army camps, and it so happens that there is a camp near all the wet towns patronized by oil-field workers.

UNPRECEDENTED YEAR FOR U. S. STEEL.

\$1,683,962,552 Was Volume of Business—More Than Twice as Much as in 1907—Heavy Increases in Wages, Etc.

In the year 1917 the gross revenues or volume of business of the United States Steel Corporation, including its subsidiary companies, reached the stupendous aggregate of \$1,683,962,552, an increase of \$452,488,773, or about 36% per cent. as compared with the total of 1916, according to the sixteenth annual report just issued.

In 1907 the Steel Corporation's business reached a total that remained for several years a high-water mark, viz., over \$757,000,000, and in reviewing the report for that twelvemonth the MANUFACTURERS RECORD showed that its volume of operations represented a greater total than the gross receipts then of any national government in the world excepting that of Russia, which was about \$1,126,000,000, the next in magnitude being Great Britain with \$737,000,000. Now the aggregate business of this great corporation is considerably more than twice as much as it was in that year, and in the same proportion it overshadows the peace-time revenues of the various nations mentioned then, including also Germany, France and the United States. In fact any of the individual governmental totals of 1907 were beaten even by the Steel figures in 1916, which were then more than \$1,231,000,000.

Of the aggregate for 1917 the total of \$1,205,882,408 represented sales to customers outside of the Steel organization, while \$377,404,530 represented inter-company sales, besides \$88,254,799 receipts of its transportation companies and \$12,420,815 receipts of its miscellaneous companies.

The total earnings of all properties after deducting all expenses incident to operations, etc., amounted to \$304,161,471.53, and the balance of earnings, after subtracting interest of subsidiary companies on bonds, mortgages, etc., was \$295,292,180.03. The net income, after charges and allowances for depreciation and sinking funds—the former amounting to more than \$43,296,000 and the latter to more than \$7,257,000—was \$244,738,908.36. Deducting from this interest on U. S. Steel Corporation bonds outstanding and premium paid on bonds redeemed, left a balance carried forward of \$222,618,757. Adding balance of sundry charges and credits, including adjustments of various accounts increased the balance to \$224,219,564.54.

Out of this there was paid the regular 7 per cent. dividend on preferred stock and 5 per cent. on common stock, in addition to which latter there was also paid an extra dividend of 12 per cent. and a further extra of 1 per cent., the latter being a Red Cross dividend, which alone amounted to more than \$5,000,000. The total dividend disbursement was \$116,714,127 for the year.

This left a net income for 1917 of \$107,505,437.54, from which was deducted \$55,000,000 appropriated on account of expenditures made and to be made on authorized appropriations for additional property, new plants and construction, as shown in the last quarterly report, this deduction leaving a balance of \$52,505,437.54 carried forward to undivided surplus, which now amounts to a total of \$431,660,803.63.

It is to be observed that in the beginning, to calculate the total earnings of all properties for the year, there were deducted, in addition to all operating expenses, those for ordinary repairs and maintenance (which approximated \$85,000,000), employees' compensation under merit plan, allowances for estimated proportion of extraordinary cost of facilities installed by reason of war requirements and conditions, also taxes (including an estimate of \$233,465,435 for account of Federal income, war income and excess profits taxes payable in 1918, but exclusive of charge for interest on outstanding bonds, mortgages and purchase obligations of the subsidiary companies.

The extraordinary large taxes, closely approximating a quarter of a billion of dollars, is one of the striking features of the report, as is also the great increase (noted in the balance-sheet) of sundry marketable securities, which for 1917 amounted to a total of \$233,047,222.50, as compared with a total of but \$40,337,583.43 in 1916, this indicating subscriptions to Liberty bonds and certificates of more than \$190,000,000.

The report notes the considerable enlargement of facilities at the works of the Tennessee Coal, Iron &

Railroad Co. during the year by the completion of various improvements previously mentioned in the MANUFACTURERS RECORD, and including among other things at Ensley an electric furnace for ferromanganese and equipment to transfer hot metal from the Bessemer furnaces; at the Bessemer rolling mills an additional heating furnace, billet and slab-handling equipment and crane extension at plate mill, also a bar and guide mill warehouse. Construction is in progress at the Ensley works on an additional open-hearth furnace, additional annealing furnace and extension to steel foundry building, etc. The Little Belle furnace at Bessemer is being rebuilt. At Fairfield a 44-inch blooming mill, a 110-inch sheared plate mill and a combination structural and bar mill are being constructed. A ship-building plant is being constructed at Mobile, this including 10 shipways. The erection of 165 miners' tenements at different mines during the year is also noted, together with 300 tenements under construction for miners and 425 houses for other employees. Much additional mining and other land has been bought, and is noted in detail.

The recent announcement that wages of employees of the United States Steel Corporation would be further increased 15 per cent. on April 15, 1918, also directs attention to the increases last year, which, says the report, were of 10 per cent. each on May 1 and October 1, respectively, although there were three increases the year before of substantially the same percentages, so that the 1917 wage rates on December 31 were 65 per cent. above rates at the end of 1915 for unskilled labor and of 56 per cent. for all employees. The average number of employees in 1917 was 268,058, the highest in any month being 277,526 and the lowest 250,836. There were 11,486 employees who entered the war service of the Government during the year.

Chairman Elbert H. Gary also says that the tonnage of unfilled orders of the subsidiary companies on December 31 was 9,381,718 tons of rolled steel products, a decrease in comparison with the end of 1916 of 2,165,568 tons, and that the conditions prevailing in respect of governmental regulation of prices, priority orders on production and the demands for war purposes, directly and indirectly, of a large percentage of the output of the mills naturally interferes with forward buying by customers.

The output of the properties and plants of the subsidiary companies in 1917 did not quite reach the record figures of the previous year, notwithstanding that additions and extensions completed and placed in operation increased somewhat the capacity. The decrease is attributed principally to inability to secure sufficient employees to fully man the plants and to the lack of ample transportation service to furnish the plants with raw materials and supplies.

The aggregate tonnage of rolled steel and other finished products shipped to both domestic and export trade was 15,370,105, a decrease of 171,983 tons, or 1.1 per cent., but the total value of this business was \$1,205,882,408, an increase of \$352,617,051, or 41.3 per cent. Of this \$179,488,730 was export business.

The consolidated balance sheet shows total assets of \$2,449,550,206.05, including the property account net at \$1,521,836,791.06.

MIDVALE STEEL & ORDNANCE.

Company Had Big Year in 1917, But Cash Needs Compelled Conservation of Funds.

The second annual report of the Midvale Steel & Ordnance Co., which covers the year 1917, says that war taxes had a marked influence on trade, especially toward the last of the year, and there has been and will continue to be a liquidation more or less drastic in order to convert these assets, so necessary to a going business, into cash, as these taxes, due in June, 1918, must be paid in cash of in its equivalent of Government securities. To accumulate the large cash reserves to meet this obligation it has been necessary for the company to conserve its cash resources in every manner, even to postponement of improvements and extensions which under normal conditions would have been made.

Furnace and mill operations during the last quarter of the year especially, were seriously hampered by

lack of transportation facilities. The regular movement of coal and coke was particularly affected.

While the company is an important source of supply for munitions of war, it is stated that materials used exclusively for war purposes, i. e., armor, ordnance, shells, etc., but not including ordinary commercial products such as are used in shipbuilding and rounds for shells, constituted less than 13 per cent. of the total business for the year.

The company has arranged to make modified Enfield rifles for the United States Government. It will be reimbursed for all of its expenditures and liabilities incurred on account of this manufacturing operation, and will receive in addition an agreed profit.

The consolidated statement of income for the year shows that net earnings from operations (after deducting all expenses incident to operating, including those for ordinary repairs and maintenance amounting to \$13,836,596.88) were \$69,838,253.73. Other income, consisting of interest earned, etc., added to this made a total of \$71,405,775.95. After deducting from this latter the total of interest paid, etc., amounting to \$407,939.52; provision for depreciation, exhaustion of minerals, etc., amounting to \$6,826,421.46; provision for prospective income and excess profit taxes, amounting to \$25,731,910.24, there was left \$38,439,504.73. Out of this there was taken \$2,862,946.57, for bond interest on all companies and guaranteed Cambria dividend (the latter amounting to \$338,720.00), which left net income for the year, after providing for minority stock profits, \$35,576,558.16. The surplus balance at the end of the year, after payment of dividends totalling \$12,000,000.00, etc., was \$41,461,560.95. At the end of the previous year it was \$18,656,610.45.

The consolidated balance sheet shows total assets of \$270,069,315.92, in which the property investment aggregates \$159,418,830.07.

The report is signed by President A. C. Dinkey and Chairman William E. Corey.

To Increase Shipments of Mexican Oil Through Port Aransas.

Corpus Christi, Tex., March 28.—[Special.]—Announcement is made that arrangements have been perfected and leases signed whereby the Texas Company will immediately construct large tank storage facilities at Port Aransas, preparatory to the operation of a fleet of oil vessels between Port Aransas and Tampico. This it is said will mean that an average of one boat daily will reach Port Aransas with a cargo of fuel oil, the Huasteca Oil Co. now having a fleet of boats plying between the two ports.

The present storage capacity at Port Aransas amounts to approximately 140,000 barrels, while an additional 55,000-barrel tank is to be erected at once. Other tanks are to be built as quickly as possible.

New Vegetable Oil Industries in Louisiana.

New Orleans, La., March 27.—[Special.]—The crushing of copra in New Orleans is becoming more and more extensive constantly.

The Southport Mills, Ltd., operators of several vegetable oil mills here and well known as the introducers into the United States of the African kola nut, have just taken over the large plant of the Orleans Cotton Oil Co., covering two squares here, where they are now crushing copra imported from the South Sea Islands through San Francisco.

As the nucleus of a castor-bean industry in this part of the State, Fairview plantation, on the lower coast below New Orleans, on the Mississippi River, a 3000-acre tract which was once a famous sugar-cane producing property, but idle for some time, is to be planted in castor beans.

Big Fertilizer and Oil Company.

Fertilizer and oil will be manufactured by the Seminole Fertilizer & Oil Co., St. Augustine, Fla., which has been chartered with a capitalization of \$250,000. The officers are: J. F. Bussells, president; D. N. Chadwick, Jr., secretary-treasurer; both of Wilmington, N. C.; R. H. McMillan, vice-president, Jacksonville, Fla.

Evolution of Florida's Highways

By GEORGE K. ARMES, Division Engineer Florida State Road Department.

Twenty years ago there were practically no roads in Florida worthy of mention. It is true that some of the cities were paved, and all of the towns were connected by trails, but it was quite an undertaking to try to drive from one county to another.

Today there are nearly 5000 miles of hard-surfaced roads in the State. These highways, along with other advantages, are making Florida famous, and tourists are coming here in great numbers to spend their winters. At the same time the residents are realizing more than ever what good roads can do for a community, and they are now rapidly enlisting in the army of progress.

About 35 or 40 years ago the two great empire builders, Flagler and Plant, extended their railroad lines in a regular network throughout the peninsula and built great palatial hotels, thereby inducing thousands of people to move into the State.

With the advent of these new settlers the people found it necessary to spread out. More land had to be brought into cultivation and a great interchange of business with the surrounding towns was gradually built up. This latter caused the birth of the agitation for good roads, and accordingly a meeting was called in Orlando and the Florida Good Roads Association was formed. The purpose of this association was to promote highway building and the improvement of all the roads in the State.

The greatest factor of all, however, in the promotion of good roads has been the automobile, and it is nothing unusual now to find merchants transacting business in several counties during the same day.

For several years after the agitation for good roads began the county officials were confronted with some very perplexing problems. Only a few men in the State had ever had experience in road building, and it was therefore impossible to secure experts in this line. Each county was a law unto itself and each set of county commissioners felt that they knew more about road work than anyone else in the community. Very generally they were right, too, for not many of their fellow-citizens had given much thought to the matter.

The big problem was the matter of financing. The general fund was not sufficient, in most cases, to even start road work. As a solution to this problem the method of bonding was adopted. This was patterned more or less from the railroads, but it did not occur to our county fathers to follow the railroads' lead any further. The lawyers' work was finished as soon as the money was raised, and a little thing like the location or the construction could be handled by anyone. No such word as "maintenance" was ever dreamed of, for the roads would be built and it was expected that they would "stay put."

It was therefore not to be wondered at that great mistakes were made, for who was there to show the way? The highway engineer in the United States is a very recent addition to the ranks of the profession, except in extremely small numbers.

After a few years of experimenting the people woke up to the fact that their money was being woefully wasted. The roads were not holding up, no maintenance funds were available and the bonds were rapidly maturing. The poor county commissioner had to stand the brunt of the numerous indignation meetings, with the usual result of the election of an entirely new board.

The Florida Legislature was finally petitioned to provide for a State highway department. After several sessions of this body of lawmakers a bill creating the State Road Department was enacted. In the fall of 1915 Governor Trammell appointed five of the best-known good road boosters in the State to serve as a commission. These men all serve without pay and they devote a great deal of their time to the cause.

In May, 1916, the commissioners selected Wm. F. Cocke of Virginia to serve as State road commissioner, or engineer. Mr. Cocke assumed his new duties in June, and for the next year his work was nearly all advisory. He mapped out a plan of procedure, however, and then he had to wait for the next Legislature to pass bills permitting the department to do some real work.

The 1917 Legislature was very favorable to the road department, and they passed the following bills and amendments:

An amendment authorizing the department to enter

into contracts for the construction and maintenance of such highways and bridges as may by law or resolution of any board of county commissioners be placed under its supervision or control.

A law giving the department the right to designate certain roads as State or State-aid roads.

A law providing for the acceptance of the Federal aid for rural and postal routes.

A law creating a convict road force and giving the authority to work certain prisoners on same.

A law providing for the protection of roads.

And last, but not least, a law providing for the registration of automobiles.

The main feature of this last law is the collection and the distribution of the money received from the sale of license tags. Something like \$300,000 will be received during the year, and this money has to be distributed as follows:

After deducting sufficient funds to pay for metal tags and incidental expenses, 15 per cent. of the entire fund is set aside for the maintenance of the State Road Department. The remaining 85 per cent. is to be spent on the roads in the several counties, in proportion to their assessed valuation. This money has to be spent under the direction of the State Road Department, and is to be generally handled on a fifty-fifty basis. That is, each county will put up an amount equal to or greater than the amount of the automobile license money that is to be spent within that county.

The department has worked out a general plan for a system of roads connecting all of the county-seats and important towns with one another. The missing links in these main roads will first be built and then attention will be turned toward widening all of the narrow roadways.

Two trunk lines have been designated as Federal-aid projects. One of them will be a highway from Pensacola to Jacksonville, following the Old Spanish Trail, across the northern part of the State and passing through De Funiak Springs, Marianna, Tallahassee, Live Oak and Lake City. The other will start at the Georgia line and run southward through the center of the State, passing through Lake City, Gainesville, Ocala, Leesburg, Eustis, Orlando and Arcadia.

During the past three years the traffic on our roads has increased tremendously. What was considered the best type of construction a short while ago simply will not support the heavy motor trucks, and more permanent paving is now required.

There are several very acceptable forms of paving in use, among which are the Dunn wire-cut lug brick, with cement grout filler; bituminous concrete; asphalt, in its several forms, properly laid on a good foundation, and concrete constructed of some hard rock. The concrete, however, has been found too expensive, as hard rock has to be brought here from other States, because our native limestones are too soft for wearing surfaces and the local deposits of flint are too small for general use.

Most of the brick used in the State for paving comes from the Birmingham district, with a fair percentage being shipped in from Tennessee and Georgia. The freight rates make it quite expensive, so only 12 of the 54 counties have adopted that type of surface.

In the sparsely-settled sections sand-clay roads are giving satisfaction, provided they are properly maintained. The best example of that class of material is in Lake county, near Leesburg. County Commissioner A. B. Lees and his road superintendent, H. W. Tompkins, have worked out their maintenance problems until it is worth going a hundred miles out of the way just to drive over their roads.

The majority of the county commissioners are now beginning to realize what the Road Department means to the State, and a great many of them are seeking advice and instructions at every opportunity. Some of the counties are turning over their entire trunk-line work to the department, and it is now up to the engineering staff to secure results.

Preparations are being made by rice farmers of South-eastern Texas and Eastern Louisiana to increase their acreages this year fully 20 per cent.

MISSISSIPPI MOSSBACKS FAVOR THE CUR DOG.

Members of State Senate Successful in Blocking All Efforts to Protect Sheep Industry.

Jackson, Miss., March 20.—[Special.]—Determined efforts to have the present session of the Mississippi Legislature pass an anti-cur bill, as a measure of protection for the State's rapidly-declining sheep industry, met with failure. The House voted by a good majority for a drastic measure, but the Senate turned it down, and no amount of speech-making, newspaper appeals or lobbying could persuade the obdurate Senators to change their votes.

It is a political tradition in Mississippi that no lawmaker who votes for an anti-dog bill ever has returned to the Legislature, and fear of political disaster played the largest part in beating the bill in the upper house.

Representative W. I. Spears of Holly Springs, in Marshall county, fathered the measure which the House passed and which the Senate voted down. It provided for a \$2 tax on dogs, prohibited their roaming at large, fixed compensation for damages upon their owners and made it possible for dangerous animals to be summarily shot. Mr. Spears not only worked indefatigably in the House for the measure, but made speeches in the Senate during its consideration and conducted a campaign of education through the newspapers.

The press of Jackson and of the State generally was a unit for the measure. The South Mississippi papers, which are doing all in their power for the development of the cut-over pine lands of that region, were especially active in its behalf. In fact, there was little opposition to the measure, and little debate in the Senate when it was defeated. It was killed without Senator Vest's noted tribute to the dog being brought in, or without any reference being made to the love of a dog for its master—just voted down because of the well-known prejudice of the countryman against anything that interferes with what he considers his "right" to keep as many dogs as he wants to.

Toward the latter days of the session a modified bill, providing that no dog should be allowed to roam, allowing compensation for damage done by dogs and permitting their execution when trespassing passed the House, but despite its toothlessness, it met small consideration in the Senate. The smaller body's attitude in this and other progressive matters was unprogressive, and certainly not appreciative of the grave food problems the nation is facing at present.

Facts were presented by Representative Spears and other proponents of the measure to show that the sheep industry, once one of the most important in the State, was declining so rapidly that it threatened to be passed out entirely in a few years, despite the great profits in wool and mutton, and the crying need for the two products as a help to win the war. The vast cut-over pine-land areas in South Mississippi have been pronounced ideal for raising sheep, and some of the largest sheep-growers in the United States have considered moving there, but they won't move, they say, until they are guaranteed protection from roving dogs.

In North Mississippi, Representative Spears said, many fine sheep have been imported recently, and growers were satisfied with the results except that none knew when a flock might be wiped out in a night by a band of prowling dogs. It was a fight against prejudice and politics, and as often happens, progress lost the battle.

The Legislature will not meet until two years hence, but when it does meet the fight will be renewed. Stockmen, agricultural extension workers, the press and big landowners are intensely interested in the passage of the measure, and just as intensely disappointed that the Legislature so signally failed to do its duty at a time when every resource of the State is needed to back the Government in its war against Germany.

Large New Petroleum Production in Mid-Continent Field.

Houston, Tex., March 28.—[Special.]—During the past two weeks the total initial production of the Texas, Oklahoma, Louisiana and Kansas oil fields has amounted close to 80,000 barrels, a record probably unequalled in petroleum history for several years back. This, of course, does not mean the total production, but the new production brought in during that time.

News and Views from Our Readers

In World Food Crisis Which Shall We Stand For, Dogs or Starving Children.

N. BUCKNER, Secretary Asheville Board of Trade, Asheville, N. C.

I am enclosing herewith editorial page from the Asheville Citizen of February 1, from which you will note that dogs destroyed \$300 worth of pure-bred poultry for John A. Ponds.

During the past three days two women have phoned me that dogs have killed nine hens for one of them and eight Belgian hares for the other, while one man stated that he had on one occasion run six dogs out of his chicken yard at one time.

From the complaints that are coming to this office it would seem that the worthless dog is a bane to the very existence of the good housewives here throughout the city and country, although more men have commended the campaign being carried on against the worthless dog than women. Every one of them asks why dogs are permitted to trespass upon the property of others without any restriction, stating that there is much more reason to permit hogs, cows and sheep and other domestic animals to run at large than dogs. The economic loss due to dogs destroying food and their consumption of food is nothing short of appalling. Every farmer to whom I have spoken regarding this matter states that a dog destroys and consumes as much food as would well keep a human being or fatten a hog.

District Field Agent J. M. Gray, with headquarters in Asheville, stated to a meeting of the Agricultural Division of the Board of Trade a few nights ago that pigs farrowed in March would make from 250 to 300 pounds of pork at slaughter before Christmas. Taking this as a basis, every dog costs the people \$75, counting pork at 25 cents a pound and using the maximum weight stated by Mr. Gray. There is said to be an average of one dog in Buncombe county to every family. Two years ago there were 6200 families in Asheville and suburbs alone, and it is safe to estimate that there are almost as many families in Buncombe county outside of Asheville and suburbs. If there are 12,000 families in Buncombe and an average of one dog to each family, this means 12,000 dogs, and the food consumed by them would produce 3,600,000 pounds of pork. At 25 cents a pound, this would mean \$900,000. These figures indicate the cost of keeping the dog population of the United States amounts to millions of dollars a year. Surely, many of the dogs that are being fed are absolutely worthless and of no value whatever. In addition to the actual amount of food consumed they destroy enormous quantities which should go to human consumption.

A Federal tax of from \$3 to \$5, or from \$5 to \$10, would produce an enormous sum of money for the national war chest (and the money is badly needed), would eliminate a great many of the worthless dogs and save this food for human consumption.

A dog and sheep control law committee has been appointed by the North Carolina Wool and Sheep Growers' Association and the Agricultural Department at Raleigh at a recent meeting, and will take up actively the propagation of a sheep and dog control law, which has been given much publicity through the efforts of the Board of Trade.

The work of the MANUFACTURERS RECORD in arousing sentiment throughout the country as to the economic waste of the dog, both from the standpoint of consumption and destruction, is of enormous advantage to the whole country.

Germs and Germans as Allied Terms.

GEO. A. HARPER, Engineering Division, E. I. du Pont de Nemours & Co., Hopewell Works, City Point, Va.

When a college coach begins training an athletic team he usually makes them sign a pledge to eat properly, sleep properly, keep themselves clean, etc., in order to keep themselves as nearly perfect as possible, physically and mentally. The first day's training on a football field will make a player's muscles very sore. He will find himself shortwinded. But after a few

weeks' training, eating properly, sleeping properly, etc., his muscles and mind develop, become alert and he no longer finds himself sore after a day's training.

Soldiers who go to camp go under similar training. But are not all American citizens soldiers?

It is generally known throughout the country that for people to get the best results from their efforts they must keep their bodies in a clean, healthy condition.

Then, this being true, why not emphasize this fact on the minds of each individual citizen? That in itself will make them feel that they are trying to do something for their country. It will not only help greatly to fight Germany, but will help greatly to fight germs. Germs and Germany are related words. They must be allies. They are, at any rate, both very detrimental to humanity. Then if we can whip them both at one time, we can afterwards live nice, clean, healthy, sweet lives.

That seems to me to be of as much importance as meatless and wheatless days, and I don't remember ever hearing it mentioned.

Would Build Wood Cars or Utilize Factory in Any Other Way to Help Win the War.

EDGAR B. STOWERS, Harriman, Tenn.

The article in your issue of February 14, "Transportation the Vital Factor in Meeting the Business and War Situation," interests the writer, and he desires to say a few words which we believe cover conditions of a number of able concerns in our line of business.

We have a plant in Harriman, Tenn., located on the Cincinnati, New Orleans & Texas Pacific Railway, Southern Railway, Tennessee Central Railway, Harriman & Northeastern Railway and Louisville & Nashville Railway; we have a well-equipped planing mill for general class of millwork and have been manufacturing about 18,000 feet of oak flooring per day for the past three years, but on account of market and shipping conditions have not manufactured much flooring for some few months. Our plant has a capacity of about 60,000 to 75,000 feet of finished lumber per day, and we are now doing practically nothing, and these conditions have been so for some months.

We have repeatedly made efforts to get orders for anything that we might manufacture for the Government, or would change our plant in order to put it in Government work. We have been referred from one department to another, and it seems that we are at the end of the line in our efforts and have succeeded in only getting information that they need nothing in our line or that we could make.

We are in a section of country from which a large supply of car oak and car material is shipped for building railroad cars. We have the ground, we have the factory, we have the railroad facilities. We are, we think, capable and feel that we could help ourselves and help our Government by doing something in our line of business if we were allowed to. We could build wooden coal cars, and if you could refer us to someone that we might take this matter up with we would thank you very much and would make another effort to get busy.

One Texas Community Plans to Add Two Shiploads of Canned Goods for Armies "Over There."

C. F. DRAKE, Executive Secretary Chamber of Commerce, Weatherford, Tex.

We finally put our canning deal through, and we broke dirt for it recently. It took eight weeks of canvassing to get the stock subscribed. We have more than 70 farmers on the list of 124 stockholders. With no more than ordinary mishaps we shall be running in June, and expect to turn out at least two shiploads of canned goods for Uncle Sam before the season closes, adding that much to the country's food supplies which heretofore has gone to waste or which was not produced at all for lack of a proper market. We will have 150 acres in tomatoes, that many in okra and an unlimited acreage in sweet potatoes, peaches, berries, plums, pears, etc., not counting the small vegetables from overflowed gardens.

Chambers of Commerce as an Antidote for Anarchy, German-Americans and All Retarding Forces.

W. G. COUTTS, Big Stone Gap, Va.

I am following up your efforts to rally this nation pretty closely. Every copy of your publication fills me with an enthusiastic desire to do something to help in the great work you are doing.

For years I have been making a close study of Chamber of Commerce possibilities as a foundation for efficiency, progress and moral forces. I find it is the greatest moral and creative force in the United States, and we must find some way to arouse a new interest in our Chamber of Commerce possibilities.

Russia has just forced a lesson on the world that makes it a stern patriotic duty to intensify on organizing the greatest possible civic patriotism and creative energy of every citizen of every community for the defeat of Germany, and every community should be organized as a unit on a war basis.

I want to urge that immediate steps be taken to rally every Chamber of Commerce in the United States and put it on a war basis to handle the Liberty Loan campaign and carry it clean over the top.

We must find some way to assist thousands of towns the size of Big Stone Gap to put their Boards of Trade on a war basis.

For a long time I have been convinced that it was the duty of the railroads to assist small towns to put their Board of Trade on a war basis, but now I would like to shift half this responsibility to R. G. Rhett and his National Chamber of Commerce.

The Chamber of Commerce is the one all-powerful antidote for anarchy, socialism, German-Americanism and all forces that are organized to retard, tear down and obstruct our progress.

Let us get the small communities organized. They are an immense possible force.

North Carolina Commercial Organization Co-operating in Effort to Raise Bigger Crops.

MANDEL SENER, Secretary-Manager Chamber of Commerce, Newbern, N. C.

The Newbern (N. C.) Chamber of Commerce has joined hands with the United States Government to aid the farmers of this section in procuring labor to plow, plant and produce. Food must be raised to win the war, and, knowing that it can do it, the demand is made of the South to put out the crops and raise a great deal more than ever in its history.

A branch of the employment bureau of the United States Department of Labor, co-operating with the United States Department of Agriculture, will be opened in the office of the Newbern Chamber of Commerce, and a local man will be appointed to represent the Government. The first drive will be concentrated in an effort to relieve the present shortage of farm labor. It will really be a clearing-house for the farmers who need help and the laborers that are seeking farm work. Both must apply to the bureau in writing or in person, receive blanks to fill out, and then the machinery will be put into motion to try to fill their requirements.

This movement of the chamber is very strongly commended by the North Carolina Landowners' Association, which aims to greatly develop the State's agricultural interests.

Would Purchase Iron Furnace.

CHAS. F. NELSON, Secretary Mineral Ridge Manganese Corporation, Strasburg, Va.

While considering the erection of a furnace for the production of ferro-manganese and spiegel, our corporation would also like to consider the purchase of a hot blast iron furnace of 50 to 100 tons daily capacity, with equipment of blower, stores, etc. Such furnace must be in reasonable physical condition, capable of repair to make usable at reasonable cost.

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Southern Industrial Activities.

During March the Construction Department of the MANUFACTURERS RECORD published 3820 items relating to industrial developments, erection of buildings, financial and railroad operations and general business interests in the South and Southwest. In January and February 7116 items were noted, and afterward detailed in monthly statements. The total number of these items for the three months is 10,936.

The following table gives the March items, under the usual appropriate headings, and also summarizes the work for the three months of January, February and March:

Industrial and Developmental.

	Totals for March.	Totals for three months, Jan., Feb., and March.
Airplane Plants, Stations, etc.	30	82
Bridges, Culverts, Viaducts.	39	88
Canning and Packing Plants.	11	18
Clayworking Plants.	87	288
Coal Mines and Coke Ovens.	1	5
Concrete and Cement Plants.	27	55
Cotton Compresses and Gins.	8	18
Cottonseed Oil Mills.	11	16
Drainage Systems.	53	157
Electric Plants.	16	32
Fertilizer Factories.	29	70
Flour, Feed and Meal Mills.	27	103
Gas and Oil Enterprises.	138	377
Hydro-Electric Plants.	8	29
Ice and Cold-Storage Plants.	26	60
Iron and Steel Plants.	3	21
Irrigation Systems.	4	8
Land Developments.	39	145
Lumber Manufacturing.	61	177
Metal-Working Plants.	9	27
Mining.	93	273
Miscellaneous Construction.	19	76
Miscellaneous Enterprises.	87	247
Miscellaneous Factories.	127	394
Motor Cars, Garages, Tires, etc.	89	265
Railway Shops, Terminals, Roundhouses, etc.	4	19
Road and Street Work.	126	374
Sewer Construction.	24	102
Shipbuilding Plants.	21	57
Telephone Systems.	12	40
Textile Mills.	51	130
Water-Works.	48	148
Woodworking Plants.	40	112

Buildings.

Apartment-Houses	70	162
Association and Fraternal	39	105
Bank and Office	71	197
Churches	79	182
City and County	46	133
Courthouses	10	32
Dwellings	375	943
Government and State	78	214
Hospitals, Sanitariums, etc.	57	166
Hotels	56	135
Miscellaneous	31	114
Railway Stations, Sheds, etc.	10	53
Schools	129	353
Stores	139	399
Theaters	31	66
Warehouses	59	162

Railroad Construction.

Railways	38	114
Street Railways.	7	21

Financial.

Corporations	101	270
New Securities.	258	750

Machinery Wanted.

Machinery, Proposals and Supplies Wanted.	533	1,479
Fire Damage, etc.	234	820
Totals.	3820	10,936

Fuel Administration Deliberating as to Means for Curtailing Non-Essential Building Operations.

Washington, D. C., March 30—[Special.]—A curtailment in the production of building materials is contemplated by the United States Fuel Administration as a further means of saving fuel and diverting the industrial forces of the country into work which will help to win the war.

There is, however, some evidence that the officials of the Fuel Administration are at a loss for the best means to establish how much of a cut should be made to carry out their program of conservation. As a first step toward acquiring this information the Fuel Administration called a conference of the editors of building trade journals, with the idea that these publications already had a survey of conditions throughout the country and would be able to state the exact amount of building contemplated for the year, as well as the extent to which the production of building supplies could be conserved.

No editors, however, came to Washington for the conference, although several of the trade journals were represented by Washington correspondents, and the results of the meeting were not such as to justify the Fuel

Administration in fixing any regulations for the limitation of production.

A further effort to obtain a more detailed report on the building activities will be made by the Government officials. It is understood that the building exchanges in representative cities may be called upon to furnish statistics as a basis for the Fuel Administration's program of conservation.

Reports which have come to the Fuel Administration indicate that building throughout the country is falling off materially, but officials of the conservation division maintain that many manufacturers rather than reduce their operations to the point where only the needed supplies are produced, prefer to keep their plants in operation and allow the output to accumulate until after the war.

The Fuel Administration contends that the elimination of all non-essential manufacturing for the remainder of the year will not only conserve the fuel supplies of the country, but will relieve the congestion on the railroads and release numbers of workmen for the shipyards and plants having war contracts.

By placing a restriction upon the amount of building materials which can be manufactured, it is believed that the owners of many plants engaged upon the so-called non-essential work will find it more profitable to convert their factories to the output of war materials, and that laborers will be inclined to seek the fields in which steady employment can be obtained.

A definite understanding with the manufacturers, it is believed, will be productive of more permanent results than priority orders for fuel and will secure the prompt conversion of more factories to war industries. It is admitted that some operators of the non-essential establishments have been able to obtain enough fuel to continue work that is not contributing in any way to the war program.

As a further check upon the building trades for the period of the war, the Council of National Defense has announced that priority assistance will be withheld by the War Industries Board from any new industrial enterprise which may be started and which is not essential toward winning the war.

Already there has been a decided check to municipal improvements through the country as a result of this statement. Without the assistance of the priority orders it will be practically impossible for contractors to keep up with their work, and a general abandonment of many projects is anticipated. Baltimore and Philadelphia have both voted to discontinue, temporarily, municipal work for which large sums were to be expended.

The action of the War Industries Board is said to be due to the feeling that all labor, materials and capital should be utilized for the national good, despite the local importance of many of the projects, and the fact that in normal times they would receive every encouragement. The statement is declared to be intended as a warning to persons that they may expect difficulties and delay, with possible financial loss, if they engage in the activities not countenanced.

Patriotic Work by Mississippi Town.

Jackson, Miss., March 28—[Special.]—Towns in Mississippi have responded liberally to requests for purchases of Thrift and War Savings Stamps, but it remained for Yazoo City to purchase every stamp on hand at the local postoffice and subscribe for \$2000 more in a single day.

F. K. Conn of that city bought outright every stamp in the local office, and, with the assistance of other citizens, sold them all in a day. His committee disposed of a total of \$3011.80. On the same day other agencies disposed of \$4032.26, making a total of \$7044.26. Yazoo City has a total population of about 5000.

Government Trailers for Aviation Service.

An important contract for manufacturing Government trailers has been awarded to the Anderson Motor Co., Rock Hill, S. C., manufacturer of automobiles. It calls for 576 trailers for the aviation service, the cost to be \$178,000. These trailers will each weigh 3000 pounds, and have four solid-tire wheels, for connection behind big motor machines or regular army transports, to carry several tons. The Anderson Motor Co. was also the lowest bidder for constructing 200 motor trucks, and anticipates receiving this contract from the Government.

Telephone Growth in War Times.

The total operating revenues of the Bell telephone system during 1917, according to the annual report of the American Telephone & Telegraph Co., just issued, were in round figures \$294,900,000, or \$30,300,000 more than in 1916, an increase of 11½ per cent. The total number of stations at the end of the year was 10,475,678, an increase of 628,486. The total wire mileage was 22,610,487, an increase of more than 2,000,000 miles during the year. The total mileage of the Bell company and connecting companies was nearly 3,500,000 miles. Over 1,000,000 toll connections were handled daily, besides 30,845,000 exchange connections, this being at the rate of over 10,000,000,000 calls a year. Plant additions costing \$118,590,462 were made, this being a record year for enlargement.

The total gross income of the Bell company was \$76,524,000, a decrease of something more than 3½ per cent., owing to increased expenses and taxes.

Especially notable is the tremendous increase in telephone facilities at Washington and in the lines reaching that city. Work was done in a few weeks which ordinarily would have taken months. When war was declared 12,000 toll operators were speedily trained for Government service. The increase in toll telephone service in Washington was greater than the increase during the eight previous years. Five times the toll switchboards there have been increased and further increases are already under way. Important additions have been made to the cables connecting the coast cities from Washington to Boston. Great additions have also been made locally in Washington as well as to the lines connecting the various Government departments. Some of the army camps required telephone facilities equal to a city of 40,000 people.

Quick Work on Big Aviation Camp in Florida.

An aviation camp, costing \$2,700,000, was recently completed near Arcadia, Fla., by the J. G. White Engineering Corporation of New York in three months from the time ground was broken. Work was begun December 16, and March 16 the camp was ready for Government use.

The plant includes 9 miles of railway; 6 barracks, each 320 feet long, for the accommodation of 250 men; 6 mess halls for men and one for officers; 12 hangars, each with space for 6 flyers; schools, hospitals, water supply with storage tanks for 70,000 gallons; 4 miles of sewers; electric-light service; telephone system; telegraph connections and other facilities for a city of 2000 population. The construction materials used included 4,000,000 feet of lumber; 1100 carpenters and 2000 laborers were employed.

To Demonstrate the Excellence of American Dyes.

At the Sixth National Textile Exhibition, which is to be held at the Grand Central Palace, New York, from April 29 to May 11, 1918, the National Aniline & Chemical Co., Inc., will display dyeings of some fifty colors of their own American manufacture, in comparison with dyeings of the same class of colors of German manufacture. The dyeings of both American and German colors will be subjected to the same tests of scouring, fulling and exposure to light and weather.

The intention is to illustrate in this manner more fully than has heretofore been attempted the present status of American dyes as compared with that of German dyes. It is believed that a careful scrutiny of this exhibit will do much to correct the present impression concerning the fallibility of American colors.

Goes Into Aviation Work.

Herbert A. Meyer, assistant to Secretary of the Interior Lane, has been commissioned as a captain in the aviation branch of the Signal Corps and assigned to active duty in the field. His duties in the Interior Department will be handled by assistant to the Secretary E. C. Bradley, who will also retain his present assignment.

Southern Farm Leasing System an Obstacle to Increasing Crop Production at This Time.

By CHARLES A. WHITTLE, Atlanta, Ga.

The Southern landlord, as a rule, lives in town, leaves his land to tenants under a system of leasing, the worst the agricultural world has ever known.

In substance it is: So many bales of cotton and do as you please.

The appeal which the Government is making for increased crop production falls short of the tenant, a great many of whom read nothing and few indeed read anything about agriculture.

And the appalling fact is that 50 per cent. of the farms of the Gulf and South Atlantic States are cultivated by the tenant system.

Tens of thousands of tenants of the South, through ignorance, do not realize that though seeds, fertilizers and supplies cost more, that they can better afford to buy and use them now than ever before, for the reason that while these things have advanced in price, they have not advanced as high as the crops which they will produce. But no; they realize only that prices have advanced; therefore they will buy less. They will, therefore, produce less.

The landowner who lives on and operates his farm is responding splendidly to the country's appeals. Whatever of increase in agricultural production and agricultural advancement that has come to the South in recent years has come through him. Whatever there is of decadence in agriculture, it is largely due to the absentee landlord who leases his land to ignorant tenants and forgets it.

At this time, if never before and never again, the absentee landlord should arouse himself to a sense of responsibility for the use of his land for his country's sake. When better use of his land means not only a service to his country in its time of dire need, but the greatest profit his land has ever brought him, what is it that should restrain him from going out to his farm, studying the problem of increasing crop production and helping the tenant to understand the advantages of pushing crop yields up this year to the maximum, helping him to realize that while some things cost more, there is greater profit in their use?

It is too true that many landlords of the South have never lived on their lands, and know less about agriculture than their ignorant negro tenants; but out of their greater intelligence they can grasp the fundamental economic facts of the present situation, which for the time being are more important than knowing a few details about planting and cultivating.

The tenant is a transient. It pleases him to rob the soil of its natural fertility by poor farm practices rather than to consider methods of maintaining soil fertility. That accounts for the thousands of wasted acres, non-productive lands of the South. Honestly, the absentee landlord is a millstone around the neck of Southern agriculture. His lands have been "handed down" till the bottom has dropped out of them and the heritage has become a mess of pottage.

Among those who might be mentioned are doubtless some of the readers of the *MANUFACTURERS RECORD*, whose brains and talents are otherwise engaged than in agricultural pursuits, but who hold on to the old farm, not for the farm's sake, but out of sentiment, and under the slipshod tenant system they get only sentiment, and even have to pay for that, sometimes.

But directly to the issue, the landlord has a duty to that farm this year that he never had before and none of his forebears ever had before. Those acres should be made to produce the largest possible crops their poor eroded sides can produce by all of the artificial aids of fertilizers, manures, lime or legumes that can be reasonably applied. To make the outlook all the more attractive, why not buy a two-horse cultivator or some other labor-saving device by which the tenant can double his labor capacity and not work so hard as he has been accustomed.

United States Now Leads in Dye Industry.

The United States has rapidly increased its production of dyes since the declaration of war between Germany and the Allies, in 1914. For many years German chemists led the world in the production of aniline dyes that satisfied in every way the requirements of dye users. The manufacturers of the United States depended solely

upon Germany for dyes, and American production was not developed to a great extent before the declaration of hostilities.

One of the largest users of dyes in this country in 1912 had at his factory samples of dyes produced by 13 German firms, and his entire order for that year came from abroad. Not an American manufacturer had samples of his wares in this consumer's factory, and consequently they received no orders. The users of dyes appeared to believe that American-made dyes could not be made that would equal the German product.

However, with the commencement of the war, Germany's commerce was cut off with this nation, and as a result we had to depend entirely upon our own resources. For the first year of the war dye users were unable to get any but a very poor quality of dyestuffs that could not be relied upon and consequently detracted materially from the standard of their products.

During this period the entire forces of our dye industry laboratories were working night and day to perfect dyes that would equal the German kind. After many weeks of experiment they began to improve the standard of the aniline colors, and this improvement has continued until we are today producing many dyes that are equally as good as those produced by the Germans.

A prominent American user of dyestuffs gives his experience as follows: "When I found that my imports of aniline colors would be cut off, I gave my chemists samples of the foreign colors and instructed them to do their best. My chief need was a Bismarck brown color, as 80 per cent. of the dye consumption of my factory was of that tint. Today we are using a Bismarck brown of our own manufacture that has all of the good qualities of the imported brand and is costing us less than when we purchased from German manufacturers."

A few statistics from the Department of Commerce records will show the rapid development of the dye industry in the United States since 1914. In that year American manufactured dyes were valued at \$16,000,000, whereas in 1917 the dyes produced in the United States were valued at \$32,000,000. These figures prove conclusively the hold which German dyes had on the American field. But besides this remarkable growth in three years, whereby we have increased our production to meet our own demands, we have built up an export trade with allied and neutral countries amounting to \$16,000,000 during the past year.

This wonderful growth of the dye industry adds another link to the chain of products that is helping to make the United States entirely self-contained and independent of any other nation.

Building Tractors in Florida.

Complete farm tractors will soon be produced at the Oldsmar (Fla.) plant of the Kardell Tractor & Truck Co. of St. Louis. The first unit of the plant is a machine shop 200 feet long by 80 feet wide, in which have been installed four carloads of machinery, while another shipment of four carloads is in transit. H. R. Setz, the company's chief engineer, formerly connected with the Swiss Government and with Dr. Diesel of Diesel engine fame, is preparing to build another plant unit, a foundry which will be equipped with a seven-ton cupola.

The Kardell four-in-one tractor to be manufactured at Oldsmar, near Tampa, is already in service on Oldsmar farm property. A lighter tractor, for use with farm implements where a horse is now required, will also be manufactured.

Airplane Facilities Costing \$3,000,000.

Further changes in plans for the airplane machine assembling shop at Montgomery, Ala., will necessitate an expenditure of \$3,000,000 for the buildings and machinery, instead of the \$1,000,000 recently announced. James Alexander & Co. of Memphis and Montgomery, have received the contract for these buildings and are now gathering the materials preparatory to proceeding with construction. The mechanical facilities of this plant will be arranged for repairing airplanes, supplying airplane parts, etc., to all airplane stations in the South. A 400-acre site will be used, and the Taylor flying field will be one-third larger than was at first proposed. Steel construction has been adopted for the buildings.

Additional Game Sanctuary for Louisiana.

New Orleans, La., March 29—[Special.]—Another great live game refuge is to be established in Louisiana. The old Hennen-Morris estate, 5000 acres, in Tangipahoa has been purchased by William L. Houlton of Unedus, La., and will be fenced, posted and made a combination cattle range and wild game preserve. Deer, wild turkey and quail will find it their special sanctuary.

Years ago the Hennen-Morris estate was one of the most famous game preserves in the State, and was under the care of C. L. Jordan, well known for his studies of animal life. With his death by assassination, presumably by poachers, some years ago the reserve reverted to its original condition; fences rotted and were not replaced; hunters overran the land and the game disappeared.

Louisiana is rich in wild life reserves, but most of these were planned for the water fowl, and this new refuge is considered an important link in the chain of reserves it is planned to establish from the Canadian line to the Gulf of Mexico.

Only 300 acres of the tract have ever been cultivated, and the rest is as it left nature's hand. Mr. Houlton will simply fence and post the property, and it is not thought that letting cattle roam the woods will interfere in this conservation of game life.

North Carolina College Undertakes Commercial Dairying.

Raleigh, N. C., March 28—[Special.]—Atlantic Christian College, at Wilson, N. C., of which Rev. Dr. R. A. Smith is president, takes a new step by the purchase of 250 acres of particularly fine farming land adjoining its own 100 acres, and on this will establish a commercial dairy of 60 cows. It now has 30, all registered. The products of the dairy will be sold to wholesale dealers, and arrangements are already made for the handling of the entire output. The dairy will be operated by the school's teachers and pupils, and experts will be in charge, both members of the faculty. It is decided to take this step as a practical solution of several questions, and 150 acres of the newly-bought land will be put in food and forage crops, including alfalfa. There are already silos on the college farm and others are to be built. The buildings will be up to date, and there will be automatic milkers. On the farm great quantities of vegetables and fruits will be produced and the surplus canned or dried.

102,000-Acre Timber Sale.

A sale of 102,000 acres of Louisiana timber land is reported to involve a purchase price of \$9,000,000, this property being located in Vernon, Rapides and Winn parishes. The purchasers are J. B. White of Kansas City, Mo.; the Forest Lumber Co. of Oakdale, La.; the Louisiana Central Lumber Co. of Clarks and Standard, La., and the Louisiana Long Leaf Lumber Co. of Fisher and Victoria, La. It is understood that the new owners plan a thorough development of this virgin long-leaf yellow-pine timber land, and that the timber will probably be shipped to the mills at Oakdale and Fisher for manufacture into lumber. A railway may be constructed into the forests of the three parishes.

Doubling Texas Yarn Mill.

Contracts have been awarded and construction is progressing for the doubling, mentioned in February, of the Hillsboro (Tex.) Cotton Mills. Robert & Co. of Atlanta, Ga., are architects and engineers for the buildings as follows: 126x114, 60x56, 57x38 and 60x30 feet; brick construction; cost \$35,000. The new machinery includes 6200 spindles and 165 looms, with an electric power equipment of 450 horse-power costing \$10,000. The daily capacity will be 7500 pounds of cotton yarn.

When the next Liberty Bond Loan is issued, on the anniversary of our entrance into the war, it should be instantaneously oversubscribed. Do not wait until the last moment to subscribe. Be ready on the opening day.

The Iron, Steel and Metal Trades

Production and Shipments of Steel Increased.

New York, April 1—[Special.]—As far as shipments of steel products and their production are concerned, there was a continued improvement last week noted in the steel industry. As for actual business, however, the steel market situation was about as it has been for the past two or three months—dull and listless.

Apart from Government orders, the pig-iron and steel markets were as dull last week as they have been for a long time past. It is not believed generally that market activity has been curtailed of late because the subject of price-fixing was up in Washington for the period following March 31. What interest there has been in price revision or confirmation has been chiefly in connection with business already on the books of the mills, as all that has been done since the first of the year is subject to any new prices that may be promulgated before the date of shipment.

Steel shipments have been increasing, but they are much better in some departments than others. Last week the tinplate mills, for example, made shipments equal to 95 per cent. of a week's output at capacity, a considerable portion of them being from stock. The leading pipe interest had practically normal shipments last month, of at least 10 per cent. from stock. Shipments of sheets, merchant bars and wire products were rather light, but there has been some increase in the past fortnight.

The unwieldy stocks accumulated by steel mills were being reduced last week, and thus production still lags behind shipments, but it has increased somewhat, nevertheless. Soft steel billets and sheet bars continued quiet, offerings being very limited.

There continues to be much divergence of opinion as to supplies and requirements in plates in the next few months. Sales when made are done so freely at the 3.35-cent price. Production is approximately at capacity. While there are cases of partial idleness of plate rolling capacity, they do not lower the average very much. Plate mills are shipping all the way from 50 to 75 per cent. of their current output on Government account, directly or indirectly. The curtailment in the freight car buying program to 50,000 cars improves the outlook for a supply of plates for commercial purposes.

There was not much market demand for pig-iron last week, but many buyers were calling for heavier shipments on contract. The new prices on pig-iron are \$32 for basic and \$32.50 for Bessemer, foundry being left at \$33, while malleable remains at \$33.50. Malleable is left out of line and should have been revised.

Orders for pig-iron amounting to several thousand tons have been allocated by the Government, and several other lots, including 2000 tons basic, are about to be distributed to furnaces in the Central West. The demand continues heavy, but furnaces are in no position to take business at present. Southern furnaces are taking a few orders from local consumers, and have also taken orders for small lots of foundry iron ranging from 50 to 200 tons each for export where licenses have been granted by the Government. Some recent sales have been made for shipment to Cuba, Yucatan and South America. There are other foreign inquiries in the market, but thus far no sales have been made.

Increased Activity in Birmingham District.

Birmingham, Ala., April 1—[Special.]—With the probable make for the second quarter of the year well sold ahead, Southern furnace companies are still giving a little attention to regular customers and those urgently needing iron in small lots, delivery during the next 90 days. Sales of iron for the last half of the year are not frequent. Inquiries are numerous. While there is satisfaction over the fact that the Government revision did not change prices on foundry irons, there is a little comment that the revision might have been for the balance of the year instead of to July 1. However, it is not believed that there has been any special harm done. Delivery on old orders shows some improvement, and it is estimated that within the next 60 days all Southern furnace companies will be right up to date on their order-books if there is no unforeseen trouble. Production is still being given every attention. Predictions

are again made that there are probabilities of a famine later on in the year. Inquiries indicate need for a large tonnage of iron during the last half of the year. Home consumers are not so optimistic as to their needs, the greater melt being with the cast-iron pipe makers, who have felt pangs of a reduced demand.

Much is heard again of an increased output in Alabama during the present month, three furnaces to resume operations. The official figures give Alabama's production in 1917 at 2,933,705 tons. Pig-iron manufacturers estimate an increase of 250,000 tons this year, though so far the make shows no improvement over the same time last year. Weather and other conditions during January and February were adverse, so that production was a little disappointing. However, there is improvement on all sides, and the preparations for additional furnaces to go into blast have been rushed and prospects are for activity that will make a showing in the near future.

Coke is still one of the stumbling blocks toward a material increase in the pig-iron make in this section. Coal production is steadily increasing, labor troubles being about over. Old ovens at Jasper, in Walker county, are to be operated for the Sheffield furnaces. Other provision is being made to increase the production of coke.

The reduction of \$1 per ton on basic iron, made in the revision of price schedule by the Government, did not affect the Birmingham district to a great extent, for the reason that with one exception practically all of the companies producing basic iron are using the product themselves and the one company selling that class of iron on the open market has contracts that will run for some time yet, and the Government revision is not retroactive.

Dealers in scrap iron and steel had an inkling as to the change of prices, reductions being noted all around in the old materials, and there were some healthy contracts taken on in this section. The scrap dealers appear to be in a fine position and are not worried in the least over prospects. Stocks with them are sufficient to meet all demands.

There is considerable good feeling locally over the announcement that the wages of employees of the subsidiary organizations of the United States Steel Corporation in manufacturing plants are to be increased 15 per cent. on April 15, which means that several thousand men will feel the effect of the advance in the Birmingham district. Shipbuilding, railroads, ore and coal mining and other works are not included in the advance in wages. The Corporation has some large industries in this district, including the Ensley steel works and the big works of the American Steel & Wire Co. at Fairfield.

Progress is noted on the Fairfield works of the Tennessee Coal, Iron & Railroad Co., at which steel will be produced for the shipbuilding plant being erected at Mobile. Before the end of the year the Fairfield works will be in operation.

Pig-iron and scrap iron and steel quotations in the South are as follows:

PIG-IRON.

No. 2 foundry, \$33.00 to \$33.50 f. o. b. furnaces.
(Basic iron, \$32.00; revision by Government probable again July 1, 1918.)

OLD MATERIAL.

Old steel axes.....	\$32.00 to \$33.00
Old steel rails.....	28.00 to 30.00
Heavy melting steel.....	24.00 to 25.00
No. 1 railroad wrought.....	26.00 to 28.00
No. 1 cast.....	24.00 to 25.00
Stove plate.....	17.50 to 20.00
Old car wheels.....	25.00 to 30.00
Tramcar wheels.....	21.00 to 25.00
Machine-shop turnings.....	17.00 to 18.00
Cast-iron borings.....	12.50 to 13.00

Metals Continue Dull and Easy.

New York, April 1—[Special.]—The demand for copper last week was reported to be brisk, and material required for work not connected with the conduct of the war continued to be released cautiously by the committee in charge. With improvement in transportation, refineries are getting fairly full supplies of crude material. Very few inquiries came into the open market, which has almost ceased to exist. Of course, the Government price is being lived up to the limit. Except

on jobbing lots, the price of 24.65 cents is being slightly shaded.

Lead in Chicago last week was reported to have been sold at 7 cents, which is on the basis of 6.95 cents St. Louis. Any lead originating in Missouri, however, has not been sold below the 7-cent price.

Consumers of spelter continued to manifest a cautious attitude last week, and, although admitting that spelter is cheap, were not disposed to go beyond their known requirements for the next two months. There is no information to show that production operations have altered to any extent lately. Spelter prices last week went to 7.30 to 7.55 cents for all shipments.

No spot tin of any kind was offered last week, nor was there any Banca tin offering for futures. The market was a very narrow affair, with trading only in Chinese No. 1 at 82 cents for lots arrived at the Pacific coast and 77 cents for April shipment from China.

RAILROADS

\$2,000,000 TERMINALS AT TULSA.

Santa Fe System Begins Work for Passenger Station and Other Facilities.

The Santa Fe Railway System, through its subsidiary, the Tulsa & Santa Fe Railway, is planning improvements to its facilities at Tulsa, Okla., which will cost, it is stated, approximately \$2,000,000. The work will include a new passenger station, a new freight house and other terminal accommodations. Two blocks of land have been bought by the company at a suitable point in the city where the station will be erected. Preliminary work has begun and tracklaying to the new site is to start immediately.

The company has for some years been using the same terminals as the Frisco System and the Midland Valley Railroad, but rapidly increasing business and the general growth of Tulsa has compelled it to establish its own terminals.

Earl W. Sinclair, president of the Exchange National Bank of Tulsa has been elected a director in the Tulsa & Santa Fe Railway Co.

Bonds Sold and Contract Let for Houston, Richmond & San Antonio Railway.

Ed. Kennedy, 905 Foster Bldg., Houston, Tex., writes to the MANUFACTURERS RECORD that the bonds of the Houston, Richmond & San Antonio Railway were sold to Howard Kenyon of Houston, who has the contract for construction of the line, which will be 186 miles long. Most of the right of way and bonuses have been secured; the amount is \$500,000. The promoting of the enterprise was done by Mr. Kennedy, who says he has "had one long pull on this work to bring it up to its present stage."

Mr. Kennedy is well known in Texas as a railroad promoter and builder, having carried out the plans for the construction of the Beaumont, Sour Lake & Western Railway which he built some years ago from Beaumont to Houston; and he also planned the construction of the line from Altus, Okla., to Wellington, Tex., 57 miles, which is now in the Missouri, Kansas & Texas system. The Lubbock & Great Northern Railroad, to be completed from Lubbock, Tex., to Hollis, Okla., (177 miles) is another of his plans. He is now vice-president and general manager of the Houston, Richmond & San Antonio Railway Co.

Sane Management and Common Sense Methods Will Be Relied on to Build Up Georgia & Florida Road.

Concerning the recent deal for a large interest in the Georgia & Florida Railway, J. F. Lewis of Valdosta, Ga., writes to the MANUFACTURERS RECORD thus:

"My brother, E. B. Lewis of Montezuma, Ga., and I bought the interest of the Baltimore Trust Co. and also the interest of some of their directors.

"We cannot say just what improvements will be made in the property, because it takes money to do these

things, which the road hasn't got. We hope to be able to improve it some, but we have no definite plans as yet. We simply bought the bonds as an investment, thinking that with Georgia control and more Georgia support we could build up its business to a larger extent, and, if possible, reduce the operating expenses.

"We intend to do with the Georgia & Florida just what we do with our own affairs, manage them with much economy and good common sense. We are trying to get more Georgia support and shippers behind the road. If we succeed in doing all of this, improvements and other things will naturally be taken care of as a result of increased business and efficiency. We believe that we can do this with more Georgia management, economy, efficiency and common-sense judgment about all matters relating to the road."

Creosoted Ties Saving Labor on Tracks.

It is understood that the depletion of section gangs on the railroads because men have been attracted to other work by reason of higher pay has turned the attention of railroad supervisors to seeking economy of labor in many ways, one of which is the use of creosoted ties in track maintenance, so that ties may be less frequently renewed. Treating ties with creosote, it is stated, doubles their length of life in the track, so that an oak or a chestnut tie which would ordinarily last eight years would, with creosoting, last sixteen years. Of course, there are many ties used of softer woods, which, without creosoting, do not last so long as eight years, but which with the treatment are capable of long usefulness. As it requires about an hour's work to take out an old tie and replace it with a new one, it may readily be comprehended what a large aggregate saving of labor could be accomplished every year on the approximately 400,000 miles of tracks in this country if the labor devoted to tie renewals is cut in half. The importance of this labor saving is further shown by the reported fact that on one division of a large railroad, where 544 men were employed in track maintenance work in 1912, there were only 358 men similarly employed in December, 1917.

Contract Cancelled Because of War.

Dallas, Tex., April 1.—[Special.]—The City Commission has rescinded the contract that was entered into several months ago with the Texas Electric Railway Co. providing for the construction of two interurban electric railways out of Dallas, as a part consideration of the granting of a new franchise to the company. The two proposed electric lines were each to be not less than 30 miles long, and their cost was estimated at about \$2,000,000. The existing war situation and the inability of the company to obtain construction material are given as the cause for the rescinding of the contract.

Good Roads and Streets

Bonds Voted.

Linden, Tex.—Cass county voted \$50,000 bonds for road construction.

Baird, Tex.—Callahan county voted \$100,000 bonds for road construction.

Lufkin, Tex.—Angelina county voted \$60,000 bonds for road construction.

Rockport, Tex.—Aransas county voted \$30,000 bonds for road construction.

Lillington, N. C.—Harnett county voted \$30,000 bonds for building highways.

Wayne, W. Va.—Wayne county voted \$1,000,000 bonds for building highways.

Portsmouth, Va.—Norfolk county has legislative authority to issue \$1,000,000 road bonds.

Bonds to Be Voted.

San Antonio, Tex.—City will vote on \$500,000 bonds for paving, street widening and fire apparatus.

Contracts Awarded.

Hamlin, W. Va.—Lincoln county awarded contracts for building 4½-mile highway.

Baltimore, Md.—City awarded \$39,750 contract to excavate and grade for parkway.

Arlington, Va.—War Department awarded \$10,000 contract for road repairing.

Gaffney, S. C.—Cherokee county awarded contract for building 8 to 10-mile road costing \$25,000.

Atlanta, Ga.—Fulton county awarded \$200,000 contract for bitulithic paving on concrete base.

* Oakville, Tex.—Live Oak county awarded contracts for constructing 20 miles of earth highway.

Athens, Tex.—Henderson county awarded contract for building 23-mile sand-clay highway, \$40,000 available, and 30-mile sand-clay highway, for which \$50,000 is available.

Contracts to Be Awarded.

Orangeburg, S. C.—City will expend \$10,000 for street improvements.

Hemphill, Tex.—Sabine county has \$500,000 available for constructing highways.

Gadsden, Ala.—Etowah county receives bids until May 7 for constructing 4½-mile road.

West Point, Miss.—Clay county has \$15,000 available for constructing two-mile 12-foot macadam road.

Birmingham, Ala.—Jefferson county has \$10,800 available for extending Birmingham-Montgomery highway.

\$1,000,000 Bonds for Roads.

The election for the issuance of \$1,000,000 bonds for road construction in Wayne county, West Virginia, has been voted affirmatively and the Wayne county commissioners at Wayne will arrange to offer these securities for sale. Engineers will soon give consideration to detailed plans and specifications for the highway improvements.

\$200,000 Atlanta Paving Contract.

Contract has been awarded by the Fulton County Commissioners for paving Peachtree street, the great thoroughfare of the city of Atlanta, Ga. Proposals were invited recently and the award, to Jamison & Halliwell of Montgomery, Ala., approximates \$200,000. This permanent paving of Peachtree road from the city limits to Buckhead will be a six-inch concrete base with a two-inch bitulithic top, laid in 20-foot strips on each side of the electric railway tracks.

TEXTILES

\$1,476,250 FOR SOUTHERN MILLS.

Total of 59,050 Spindles and 698 Looms Announced for Quarter Year.

An investment of \$1,476,250 is the amount estimated as required for the new and enlarging Southern cotton-mill enterprises reported by the MANUFACTURERS RECORD during the first quarter of the year. It includes buildings and machinery for equipments totaling 59,050 spindles and 698 looms, for both the new companies and those which are adding to their plants in accordance with the announcements of January, February and March. Four new organizations were reported, with a total of 26,000 spindles for a \$650,000 investment, while the remainder of the total is credited to the established

mills increasing their facilities for the manufacture of cotton products. There are 11 companies listed as enlarging their mills to the extent of 33,050 spindles and 698 looms, the estimated investment for these equipments being \$826,250.

North Carolina leads the quarter's activities, with 12 companies installing 57,000 spindles and 100 looms, \$1,425,000 being the necessary investment for these plants. The four new companies, their equipments being 26,000 spindles with a \$650,000 investment, are in the State named. The eight increasing companies in North Carolina are installing 31,000 spindles and 100 looms, a \$775,000 investment. The remaining 598 looms are for three mills adding to their weaving facilities in Georgia, South Carolina and Oklahoma, while 2050 spindles are also being added to these mills. Nearly all the new spindles are being arranged for spinning hosiery yarns, now in large demand for the many knitting mills, principally hosiery producers, being established and enlarged throughout the South.

News of interest for the year's first quarter included: Rebuilding a \$500,000 army cloth mill in Maryland; expending \$250,000 for an addition to a mill in Georgia; appropriation of \$1,000,000 asked for installing a 500-loom equipment with electric power drive in the \$129,500 cotton-mill building erected for the Federal prison at Atlanta; Dwight Manufacturing Co., Alabama City, completed \$500,000 building and machinery additions.

A summary of the January, February and March reports on new and enlarging Southern cotton mills is presented herewith.

Lihomac Hosiery Mill.

An equipment of 21 knitting machines with electric power drive for a daily capacity of 100 dozen pairs of hose will be installed by the Lihomac Hosiery Mill of Shelby, N. C. This company has organized with \$5000 capital and the following officers: George A. Hoyle, president; J. R. McClurd, vice-president; L. E. Ligon, secretary-treasurer. It is the enterprise mentioned recently as planned by L. E. Ligon and associates.

Textile Notes.

The Louise Knitting Mills Co., East Durham, N. C., has increased capital from \$50,000 to \$150,000.

The Decatur (Ala.) Hosiery Mill will increase capacity and has ordered the new additional machinery.

The Sunshine Hosiery Mill, Chattanooga, Tenn., plans to establish a branch knitting mill at Murfreesboro, Tenn.

The J. Elwood Cox Manufacturing Co., High Point, N. C., recently reported, is not a textile enterprise but manufactures lumber.

The Niota Development Association, H. T. Burn, secretary, Niota, Tenn., plans to secure the establishment of a cotton spinning mill. Data and prices on the necessary machinery are invited.

The Consolidated Engineering Co. of Baltimore has received contract to construct the buildings for the Oella (Md.) Mills, which will rebuild burned \$500,000 woolen cloth plant in accordance with details lately stated. These buildings will cost \$260,000 and will be equipped with machinery to cost \$225,000, this equipment including 3900 spindles and 60 looms, with electric power drive.

Georgia.		Location.		Spindles.	Looms.
Name.					
*Southern Manufacturing Co.	Athens			1,000	150
North Carolina.					
*Dickson Cotton Mill	Laurinburg			5,000	...
*Vivian Cotton Mills	Laurinburg			2,000	...
*Linn Mills Co.	Landis			6,000	...
*Cross Cotton Mills Co.	Marion			4,000	...
*Phoenix Mills	Kings Mountain			5,000	100
*Parkdale Mills	Gastonia			5,000	...
*Gray Manufacturing Co.	Gastonia			5,000	...
*Anna Cotton Mills	Kings Mountain			4,000	...
Myrtle Mills	Gastonia			10,000	...
Belbro Mills	Charlotte			4,000	...
White-Parker Mills Co.	Concord			2,000	...
Alexander Manufacturing Co.	Forest City			10,000	...
				57,000	100
Oklahoma.					
*Pioneer Cotton Mills	Oklahoma City			...	80
South Carolina.					
*Mollohon Manufacturing Co.	Newberry			1,050	368
				59,050	698
Total for first quarter of 1918.					
*Established mills enlarging.					

Illustrating to develop inventions

New

Extremest cost of necessary



it took over Chicago, t on the So reduce lab operation, tory job t with L. A turing Co illustrated

With the chinery es to work a excavators and to oc in "movin this machi thus reduc speed of c

The gen a steam sh a quantity ished sew usual meto terial into transport filling was

After th and the b The drag-point when capacity. T out the fu of the sew obtained, a the sewer tively con The drag-l the operat bucket wo to the hop filling mac drag-line several ho speed and Regardl

MECHANICAL

Illustrations and descriptions having news value pertaining to developments in machinery, mechanical devices and inventions will be considered for use in this department.

New Back-Filling Machine for Sewer and Other Work.

Extreme scarcity of labor, together with increased cost of operation and maintenance, made it absolutely necessary for the Byrne Bros. Construction Co., when

handled, the operator would dump the load into the receiving hopper, about 10x12 feet long. The top of this hopper was made of heavy steel. Along the bottom was an endless feeder made of heavy steel overlapping pans carried on two strands of heavy roller chain which fed the clay at a good speed from the bottom of the hopper through a system of rotary knives, which took lumps two feet or three feet square and four feet long and reduced them to a size easily handled by the belt conveyor, which ran back from the feeder parallel to the excavation.

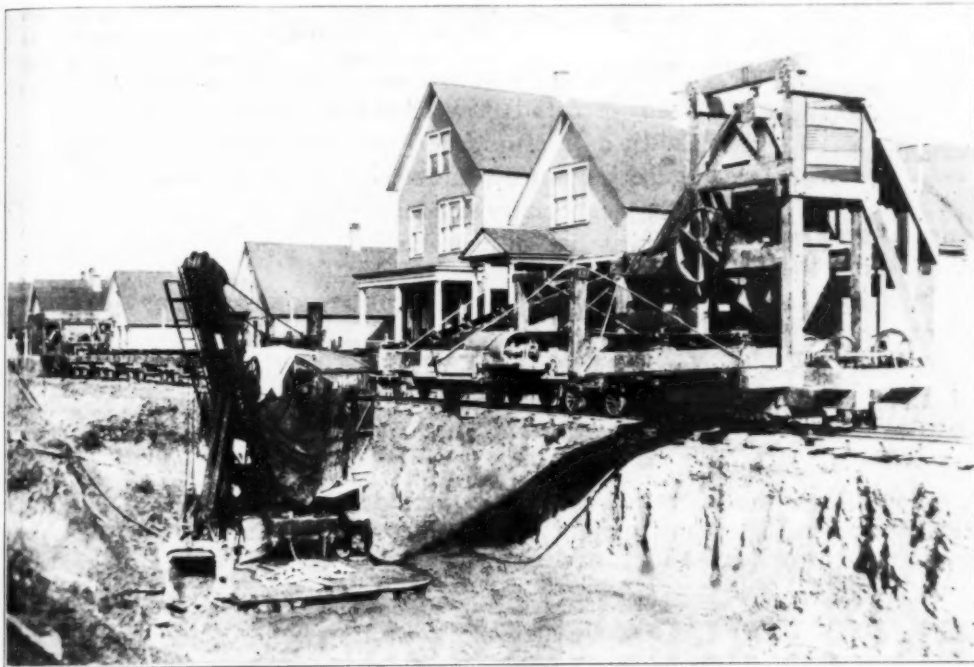
The belt conveyor was a unique thing, for it was mounted on a series of industrial railway cars, making the whole outfit portable. This conveyor, 40 inches wide

ing or special adjustment, and the saving accomplished by this characteristic is therefore great.

It is further stated by the manufacturer, the American Pulverizer Co., St. Louis, that all the grinding parts are made of manganese steel of the best quality, which gives a low expense figure for wear and tear in grinding. At the same time the flexibility and adjustment of the rings prevent use of excessive power when heavy rocks are being ground. The machine is particularly suited for grinding limestone for agricultural purposes, and it may be observed that the limestone deposits which are not suitable for making concrete are the most economical for this purpose. Ledges up to five inches in thickness can be blasted, and the slabs, of sizes not larger than the opening in the machine, can be ground to dust in one operation without the employment of a jaw crusher. These pulverizers are made in different sizes and capacities, the opening varying from 15 inches to 48 inches.

In connection with an automatic feeder, it is stated, the pulverizer will run automatically for weeks without regard to the experience of those who may have to attend to it, and it is further claimed that the cost of grinding agricultural limestone will not exceed 30 cents per ton, but there are reports from users of a cost as low as 10 to 15 cents per ton, this covering labor, power, wear and tear.

In using $\frac{3}{8}$ grate bars and No. 10 mesh screen a product is obtained containing the following sizes: 77 per cent. passing No. 14 mesh, or 48 per cent. passing No. 40 mesh, or 27 $\frac{1}{2}$ per cent. passing No. 100 mesh, which, it is said, exceeds any requirements for agricultural limestone. Moreover, it is claimed that the machine will handle the screening in a rock quarry without drying if 25 per cent. of $\frac{3}{8}$ -inch or larger sizes is added. This method, it is stated, will give a market



ONE OF THE WELLER BACK-FILLING MACHINES "ON THE JOB."

it took over a contract from the Sanitary District of Chicago, to build two sections of 17-foot concrete sewer on the South Side, to devise some system which would reduce labor requirements, increase efficiency and speed operation, and also produce a better and more satisfactory job than before. So the company, in conjunction with L. A. Dolton, an engineer of the Weller Manufacturing Co., Chicago, worked out the system which is illustrated in the accompanying halftone.

With this arrangement each unit of the expensive machinery essential to carrying on the work is permitted to work at full capacity. Large, expensive drag-line excavators, usually forced to be idle much of the time, and to occupy about one-third of actual working time in "moving up" operations, are allowed by the use of this machine to work from one position for a long time, thus reducing the cost of excavation and increasing the speed of operation.

The general method employed on this job was to have a steam shovel go down through the street and excavate a quantity of earth equal to the cross-section of the finished sewer. This operation was carried out in the usual method, the shovel delivering the excavated material into narrow-gauge industrial railway cars, which transported it to a suitable dump or to a place where filling was required.

After the steam shovel came the drag-line excavator and the back-filling apparatus shown in the picture. The drag-line machine would start excavating from a point where the boom could be used to its maximum capacity. Then, remaining here, it would continue to dig out the full amount of dirt required for the installation of the sewer. When a suitable length of ditch had been obtained, approximately 50 feet, the work of putting in the sewer commenced, and from this time on a comparatively continuous cycle of operation was carried out. The drag-line machine would dig as fast and as hard as the operator could make it go. From one position the bucket would swing back and forth from the excavation to the hopper, which is located at the end of the back-filling machine. Because of the reach of the boom, the drag-line excavator could stand in the same place for several hours, and it can therefore be readily seen what speed and what satisfactory operation could be obtained.

Regardless of the material or of the size of the lumps

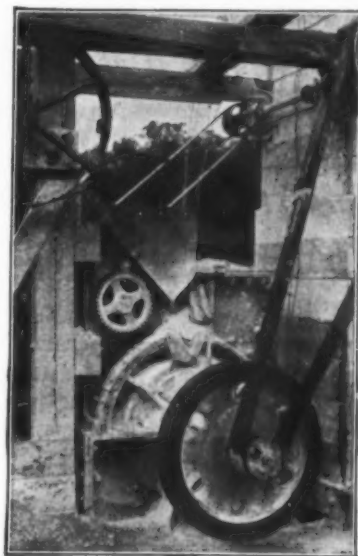
and 150 feet centers, carried the dirt down back of the point where the men were building the sewer to a point where the concrete had already set and was ready for back-filling. Here it discharged the material onto a cross-belt or boom, which carried and distributed it out over the finished sewer.

This system, it is stated, does away with a great deal of handling and rehandling of material for back-filling, which is usually done at a high cost, but the greatest points are the speed and continuity of operation of the various parts, and the fact that the entire operation can be carried on within the street lines. Ordinarily the rate of progress in a sewer of this description would be about 15 feet of finished sewer per day, while by use of one of these machines it is said that no trouble whatever is found in getting from 30 to 35 feet per day. When these points are taken into consideration—let the labor required is considerably reduced and the output of finished sewer is doubled—one can readily see the advantages of an equipment of this character. The mechanism is comparatively simple, and is heavily built throughout to withstand the shocks, rough usage and ordinary abuses found in all contracting work of this nature.

The Weller Manufacturing Co., which built this equipment, has had long experience in the production of elevating, conveying and power-transmitting machinery. Its works are at 1820 and 1856 N. Kostner avenue, Chicago.

Efficient Pulverizer of Unique Design.

A pulverizing machine of unique design for the reduction of fire clay, shale, clay, coal, coke and numerous other materials is the American ring-hammer pulverizer, which has been improved since its advantages were first made known and recognized. It possesses two features that specially commend it to users of such machines. One of them is its low speed (600 revolutions per minute), and another is the self-protection of the loose-ring hammers that prevent the machine being damaged if foreign materials, such as bolts or other pieces of metal, pass into it along with the matter which is being pulverized. Moreover, the rings are worn in such a manner as to not require any sharpen-



RING HAMMER PULVERIZER RUN BY MOTOR.

value to these old dumps by converting the screenings into agricultural limestone.

The illustration herewith shows a No. 36 machine operated by a 60-horse-power motor and having a rated capacity of 15 tons of rock per hour. In running over a period of four weeks an actual average capacity of 10 tons per hour for the entire period is reported.

It is believed that the use of these pulverizers will be considerably extended and enlarged owing to the increasing need for limestone on farms, its value as a means of increasing their productivity being more and more appreciated, especially at this time, when agriculturists everywhere are being urged to spare no efforts to obtain larger returns from their acres. In Illinois it is reported that a wheat yield was increased over six or eight bushels per acre after limestone was applied to the land.

Pumping Engines Wanted.

PEDRO MONTALVO, Estacion de Sanbernardo Merida, Yucatan, Mexico.

Favor me with particulars in regard to pumps which can deliver the greatest quantity of water from a depth of six meters and pumps which can deliver six inches of water from the same depth of six meters; not only gasoline or crude petroleum, but also steam engines.

American Electrochemical Society To Visit the South, April 29—May 4.

THE decision of the American Electrochemical Society to make its spring meeting a tour of the Appalachian South will bring to this section many of the country's foremost experts, who have made possible America's supremacy in the vital "key industries" in electrochemical and electrometallurgical lines.

This supremacy has been achieved around Niagara Falls, but the demand for the products of these industries is increasing so steadily that other suitable locations will have to be found where abundant hydro-electric power, raw materials and other needed requirements will permit future de-

velopments to meet this demand and at the same time prevent America from losing the commanding position it has won.

The eyes of these industrial scientists have been directed towards the Appalachian South as a situs for the future location of these industries, and this Southern trip is being especially made so they can study the situation at first hand.

The Manufacturers Record recognizes that this visit is one of the most significant and far-reaching in ultimate possibilities for the South and for the nation that has ever been made to this section.

And in order to place before these experts some basic facts dealing with the resources, power facilities and general advantages of the Appalachian South for electrochemical industries the

MANUFACTURERS RECORD Will Feature in its April 25th Issue A Symposium on Southern Resources for Electrochemical Industries

The articles for this symposium will be prepared by eminent authorities and will deal with the South's manifold advantages of location, water-power, raw materials and general fitness as the future situs in America for a wholesome expansion of these industries.

SPECIAL ADVERTISING SECTIONS

Descriptive Advertising Section

This department will immediately follow the reading section and will provide a preferred location where

**Railroads Hydro-Electric Companies
Cities Commercial Organizations**

of the South can carry advertising-reading articles covering the detailed and special advantages available for electrochemical development in their various sections.

Display Advertising Section

Will follow the descriptive advertising department where Southern manufacturers who desire to be identified in a representative way in co-operating with this effort to impress the visitors with what the South can offer them.

Here also will be located special advertisements of those who make electrochemical and electrometallurgical products, and the machinery, equipment and supplies used in their manufacture.

Rates for descriptive article and display advertising on request.

Early reservations for space are important

MANUFACTURERS RECORD, Baltimore, Md.

Construction Department

IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the post-office will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

AIRPLANE PLANTS, STATIONS, ETC.

Ala., Montgomery.—Airplane Repair Shop.—War Dept., Capt. H. R. Eyrick in charge of construction at Montgomery, Americus, Ga., and West Point, Ga., let contract to Jas. Alexander & Co., Memphis, Tenn., and Bell Bldg., Montgomery, to construct buildings for aviation machine and assembling shop; steel construction; to cost \$3,000,000 for buildings and machinery; instead of \$1,000,000 recently announced. (Lately noted.)

N. C., Raleigh.—Airplanes.—Carolina Aircraft Co., authorized capital \$500,000, inceptd. by Harry N. Atwood, John A. Park, Howard White and J. M. Broughton; build airplane factory. (Harry N. Atwood lately noted planning factory.)

Tenn., Memphis.—Repair Shop, etc.—War Dept., Maj. E. L. Canady in charge at Memphis, will build 4 additional airplane hangars and repair shop at Park Field, Government aviation school; steel construction; demountable; building construction under direction of E. S. Wickham, Contr., Memphis.

BRIDGES, CULVERTS, VIADUCTS

Fla., Lake Worth.—Palm Beach County will construct bridge across Lake Worth; 150-ft. steel swing draw or Scherzer rolling lift steel span with clear opening of 60 ft.; County Comms., L. Trevette Lockwood, Chrmn., West Palm Beach, receives bids until May 7; R. F. Goodman, County Engr. (See Machinery Wanted—Bridge Construction.)

Ky., Paducah.—McCracken County Commissioners have plans by State Road Commissioners, Frankfort, for bridge across Massee Creek on Noble Road; first contract to be let for concrete abutments; contract for structural steel work to be let later; cost \$25,000 to \$30,000. Jas. M. Lang, County Judge.

La., Monroe.—Ouachita Parish Police Jury asks bids until April 4 to construct bridge, estimated cost \$14,500; cost of fill and roadway \$2000; ten 36-ft. girder spans on columns 15 to 27 ft. high; piles under each column and abutments; 16-ft. clear roadway; R. P. Boyd, Parish Engr., Monroe; all material purchased except cement. Lately noted. (See Machinery Wanted—Bridge Construction.)

S. C., Charleston.—Charleston County Sanitary and Drainage Com., Jas. W. Martin, Engr., 39 Broad St., let contract to Austin Bros., Atlanta, Ga., to construct bridge 18 mi. from Charleston; low truss steel draw, 96 ft. over all, 2 concrete abutments and center fender; cost \$9800. (Lately noted.)

Tex., Clarendon.—Kent County Comms. let contract to construct two bridges, one across Double Mountain Creek, between Clarendon and Snyder costing \$13,500 and other across Salt Fork of Brazos River, between Clarendon and Girard, costing \$16,500.

Tex., San Antonio.—City, Hans Helland, City Engr., will vote on \$150,000 bonds for bridge construction.

CANNING AND PACKING PLANTS

La., Chalmette.—American Sugar Refining Co., New Orleans, will establish syrup cannery.

Md., Baltimore.—Chas. G. Summers & Co., 415 W. Camden St., let contract to Consolidated Engineering Co., 243 Calvert Bldg., Baltimore, to erect 200x100-ft. 1 and 2-story concrete-construction building for meat-packing plant; Owens & Sisco, Archts., 1605 Continental Bldg., Baltimore. (Lately noted inviting bids.)

Tex., Fort Worth.—Ratliff Chili & Canning Co. will change name to Ratliff Pure Food Products Co. and increase capital from \$10,000 to \$25,000.

Va., Lynchburg.—J. W. Gillespie of Bedford, Va., will install cannery; proposes to pack 40,000 doz. cans tomatoes this season.

CLAYWORKING PLANTS

La., Shreveport.—Bricks.—Union Brick Co., Frank C. Nicholson, Prest., Iola, Kan., contemplates establishing brick works.

COAL MINES AND COKE OVENS

Ala., Jasper.—Hillard Coal Co., capital \$2000, inceptd. by Steve Cranford, Mada Cranford and J. J. Grace.

Ala., Parrish.—America-Pratt Coal Co., capital \$5000, inceptd. by Asa Cranford, H. Cam Smith, W. L. Guttery and others.

Ky., Bells Trace.—Dry Fork Coal Co.,

capital \$5000, inceptd. by Will H. Artise, C. C. Flannery and Drew Evans.

Ky., Buckhorn.—Buckhorn Coal & Lumber Co. (W. C. Begley and others), lately noted inceptd., capital \$150,000, advises Manufacturers Record: Have 6000 acres undeveloped coal lands, including options, etc.; practically covered with oak timber; also have 5000 additional acres timber; all on Middle Fork, Kentucky River, mainly in Leslie County; railroad development needed; contemplates coal development and manufacture of crossties. (See Lumber Manufacturing.)

Ky., Cornettsville.—L. K. Parsons and others reported as leasing coal lands for development.

Ky., Craftsville.—Elkhorn Junior Coal Co. organized by Richard P. Ernst and others. (Lately noted contracting for incline.)

Ky., Craftsville.—Elkhorn Junior Coal Co., capital \$10,000, inceptd. by Carl S. Rankin, Geo. Stugard and Richard P. Ernst.

Ky., Elkhorn City.—Kentucky Elkhorn Coal Corp. increased capital from \$10,000 to \$75,000.

Ky., Hazard.—Hazard Junior Coal Co. increased capital from \$10,000 to \$25,000.

Ky., Jackhorn.—Elkhorn Superior Coal Co. increased capital from \$25,000 to \$50,000; reported to extend plant.

Ky., Magoffin County.—Licking-Beaver Co., capital \$200,000, inceptd. by G. D. Miller, W. H. Cunningham, Frank Enslow and others, all of Huntington, W. Va.

Ky., Praise.—Kentucky Elkhorn Coal Corporation increased capital from \$9000 to \$75,000.

Ky., Pike County.—Marpoke Coal Co., capital \$50,000, inceptd. by T. J. Robson, C. L. Rice, W. R. Reynolds, all of Charleston, W. Va., and others; develop coal mines in Pike and Martin counties.

Ky., Whitesburg.—B. F. Salzer leased coal lands on L. & N. main line; will develop.

Ky., Whitesburg.—J. M. Freeman, Harlan, Ky., and others reported as leasing coal lands, Lotts Creek section.

Ky., Whitesburg.—Powell Coal Co. organized; capital \$50,000; Chas. B. Powell, Mgr.; install mining plant; electric equipment.

Ky., Williamsburg.—Keeton Blue Gem Coal Co., capital \$5000, inceptd.; Chas. H. Keeton, Prest.; W. H. Lyon, V.-P.; Harry C. Keeton, Secy., Treas. and Mgr.; develop 550 acres; daily output, 1 to 2 cars.

Tenn., Chattanooga.—Straight Ford Coal Co., capital \$25,000, inceptd. by E. Scott Miles, J. C. Pemberton, I. G. Phillips and others.

Va., Norfolk.—Hampton Roads Collieries Co. increased capital from \$100,000 to \$200,000.

W. Va., Fairmont.—Mongolia Sewickley Co., capital \$10,000, inceptd. by H. H. Staggers, M. F. Staggers, Thos. Neptune and others.

W. Va., Huntington.—Oriole Coal Co., 302 Day & Night Bank Bldg., organized; A. J. King, Prest.; Frank Enslow, V.-P.; B. W. Partridge, Jr., Secy.-Treas.; develop 376 acres; ultimate annual output 200,000 tons. (In January noted inceptd., \$100,000 capital.)

CONCRETE AND CEMENT PLANTS

N. C., Wilmington.—Cement Products.—Cement Products Co., Geo. W. Kidder, Prest., foot of Harnett St., will build plant at 1010 S. Front St.; let contract Rhodes & Underwood of Wilmington to erect initial building 200 ft. long; remove equipment from present plant.

COTTON COMPRESSES AND GINS

N. C., Benson.—P. B. Johnson interested in plan to build cotton gin.

Tex., Greenville.—New Gin Co. increased capital from \$25,000 to \$100,000.

Tex., Richmond.—S. J. Winston, A. M. Holmes and J. R. Farmer will build cotton gin.

COTTONSEED-OIL MILLS

Fla., St. Augustine.—Seminole Fertilizer & Oil Co., capital \$250,000, inceptd.; J. F. Bussells, Prest.; D. N. Chadwick, Jr., Secy.-Treas.; both of Wilmington, N. C.; R. H. McMillan, V.-P., Jacksonville, Fla.

DRAINAGE SYSTEMS

La., Plaquemine.—Lake Long Drainage District, Edward J. Gay, Prest., will dredge system of canals, varying from 16-ft. bottom width and 2½ ft. deep to 100-ft. bottom width and 8½ ft. deep; 1,400,000 cu. yds. excavation; bids until April 27; separate bids for clearing right of way and removing merchantable timber; issue \$175,000 bonds. (See Machinery Wanted—Drainage System.)

S. C., Anderson.—Little Beaverdam Drainage Assn. let contract Wade A. Watson of Anderson to construct drainage canal; 4 mi.

ELECTRIC PLANTS

Ga., Jeffersonville.—City voted \$2000 bonds to build electric-light plant and \$15,000 to build water-works. Address The Mayor.

Ga., Metter.—City, W. H. Lanier, Mayor, will increase electric plant capacity from 25 to 50 H. P.; lately noted. (See Machinery Wanted—Engine.)

Ky., Irvine.—Irvine Electric Light Co., capital \$80,000, inceptd. by Jno. J. Langan and others.

Md., Myersville.—City plans to establish electric-light plant and water-works. Address The Mayor.

N. C., Charlotte.—Southern Public Utilities Co. plans to increase electric generating facilities.

N. C., Reidsville.—City voted \$10,000 bonds to extend electric-light plant. Address The Mayor.

Okla., Blackwell.—City voted \$82,500 bonds to extend electric-light system. Address The Mayor. (Lately noted to vote.)

FERTILIZER FACTORIES

Fla., St. Augustine.—Seminole Fertilizer & Oil Co., capital \$250,000, inceptd.; J. F. Bussells, Prest.; D. N. Chadwick, Jr., Secy.-Treas.; both of Wilmington, N. C.; R. H. McMillan, V.-P., Jacksonville, Fla.

Ga., Macon.—Farmers' Limestone Co., capital \$20,000, inceptd. by S. J. Buquo of Perry, Ga., and others.

FLOUR, FEED AND MEAL MILLS

N. C., Asheville.—Craggy Milling Co., capital \$200, inceptd. by P. E. Gillespie, J. M. Shook and C. F. Sumner.

N. C., Wilson.—Wilson Roller Mills Co. (M. T. Cousins and L. G. W. Barefoot) will install 25-bbl. roller flour mill, corn meal and feed mills in brick building. (Lately noted to install mill in structure to be erected by Diddy & Agnew.)

Okla., Clinton.—Clinton Milling Co. chartered with \$50,000 capital by Henry Schaffer of Clinton, J. W. Maney and C. W. Bleuler of Oklahoma City.

S. C., Dillon.—Wade Stackhouse will erect milling plant to cost \$55,000; flour mill will have daily capacity 50 bbls.; corn mill 400 bu. meal in 10 hrs., and feed mill to can 50 tons molasses feed in 24 hrs.; operate by 150 H. P. steam plant.

FOUNDRY AND MACHINE PLANTS

Ala., Birmingham.—Grate Bars.—Birmingham Grate Bar Co., capital \$5000, inceptd.

Md., Baltimore.—Iron Works.—Kennedy Foundry Co., Charles and Wells Sts., will rebuild plant reported burned at loss of \$200,000.

Md., Hagerstown.—Roller Tools.—Diffendall Tool Co. organized; capital \$150,000; S. Ennis, Prest.; H. B. Warlock, V.-P.; Walter H. Diffendall, Secy.-Treas.; O. E. Grimes, Mgr.

N. C., Winston-Salem.—Machine Works.—Briggs-Shaffner Co. will expend \$80,000 for general improvements, additional buildings and new machinery; construct 3-story 160x100-ft. reinforced concrete building for machine shop; build 1-story 100x100-ft. structure for foundry; W. C. Northup, Archt., Winston-Salem.

Okla., Tulsa.—Boilers.—Leahy Boiler Works, capital \$15,000, inceptd. by R. Leahy, R. J. Justice and H. O. Bland.

Okla., Tulsa.—Tanks.—Acme Tank Co., capital \$100,000, inceptd. by E. L. Maddox, W. A. Sipe, Jr., and H. B. Maddox.

Tex., Houston.—Pumps.—Houston Pump & Supply Co., capital \$12,000, inceptd. by A. J. Carr, R. A. Wilson and J. A. Mobley.

Va., Richmond.—Car Shop.—Richmond Terminal Co. will erect plant to repair and clean cars; cost \$5000.

GAS AND OIL ENTERPRISES.

Ky., Louisville.—Arens Drilling Co., capital \$10,000, inceptd. by Jno. J. Davis and others.

Ky., Paintsville.—Paintsville Oil & Gas Co., inceptd. with \$25,000 capital by C. C. Buckingham and others.

Ky., Princeton.—National Oil & Refining Co., inceptd.; capital \$300,000; Edward Garrett, Pres.; Geo. H. Hodge, V.-P. and Gen. Mgr.; A. M. Luttrell, Treas.; John W. Bebout, Secy.; C. C. Jones, Engr.; owns 6000 acres; will develop; has drilling machinery; needs pipe; organizing another company for Christian County, this also for 6000-acre development; derrick being erected. (See Machinery Wanted—Piping.)

Ky., Winchester.—Big Four Oil & Gas Co., capital \$75,000, inceptd. by C. H. Bowen, J. L. McChord and H. C. Skinner.

La., Lake Charles.—Oil Refinery.—War Dept., Washington, D. C., let contract American Construction Co., Houston, Tex., to construct oil refinery and research buildings.

Okla., Ardmore.—Walco Petroleum Co., capital \$100,000, inceptd. by H. Wallace, F. L. Coogan and C. T. Harringer.

Okla., Bartlesville.—Gasoline.—Aero Gasoline Co. chartered with \$30,000 capital by J. H. Welch, K. B. Welch and F. W. Mohow.

Okla., Cushing.—Baxter Oil & Gas Co., capital \$15,000, inceptd. by J. A. Baxter, R. J. Gratoit and S. V. Rigby.

Okla., Duncan.—Goodshot Oil & Gas Co., capital \$60,000, inceptd. by J. A. Fowler, A. W. S. Lancaster and Frank Fiqua.

Okla., Duncan.—Empress Oil & Gas Co., capital stock \$300,000, inceptd. by J. J. Cloughley of Ringling, Okla., J. L. Thompson of Healdton, Okla., and R. W. Adams of Wirt, Okla.

Okla., Duncan.—Oil Refinery.—J. A. Pricely interested in plan to build oil refinery.

Okla., Duncan.—Oil Refinery.—Duncan Oil Refining Co., capital \$500,000, inceptd. by J. W. Whiteman and others.

Okla., Duncan.—Base Line Oil Co., capital \$500,000, inceptd. by C. W. Johnson and others.

Okla., Drumright.—Chithoma Oil & Gas Co., capital \$250,000, inceptd. by W. V. Buckner of McAlester, Okla.; Loomis M. Jacobson and Blair W. Gair of Chicago.

Okla., Enid.—Winner Petroleum Co., capital \$150,000, inceptd. by F. H. Krause of Enid, Wm. Gurnerson of Kremlin, Okla., and G. A. Brown of Sedan, Kans.

Okla., Geary.—Golden Dawn Oil & Gas Co. chartered with \$100,000 capital by H. W. Stahlheber and J. P. Robertson of Geary, and E. Ed. Strum of Oklahoma City.

Okla., Garber.—Garber Development Co., capital \$25,000, inceptd. by J. L. Neumer, G. H. Ebert and E. E. Miles.

Okla., Lawton.—Victory Oil & Gas Co., capital \$100,000, inceptd. by W. P. Records, F. H. Beasley and F. B. Buell.

Okla., Marlow.—Ranola Oil Co., capital \$300,000, inceptd. by J. Ad. Wylie of Marlow, Jno. S. Graham of Enid, Okla., and H. H. Brown of Duncan, Okla.

Okla., Oklahoma City.—Lubricating Oil Refinery.—Golden Belt Refining Co. (lately noted inceptd., capital \$99,000) organized; J. N. Bowen, V.-P., Gen. Mgr. and Engr., Suite 907 Oil Exchange Bldg.; will erect lubricating oil refinery of 1000 bbls. capacity; use asphalt base crude; install small pumps; mainly 4-in. piping. (See Machinery Wanted—Oil Refinery Equipment; Cars; Building Materials.)

Okla., Oklahoma City.—Oil Refinery.—Doublehead Oil & Refining Co., capital \$261,000, inceptd. by G. W. Carlett, V. Myers and L. M. Trospier.

Okla., Okmulgee.—High Mount Oil & Sulphur Co., capital \$500,000, inceptd. by G. A. Simmons and Harlan Read of Okmulgee, and E. R. Roderick of Wilkes-Barre, Pa.

Okla., Oklahoma City.—Oil Refinery.—Independent Refinery Co., capital \$300,000, inceptd. by J. W. Bouse, W. M. Weber and G. L. Buck.

Okla., Tulsa.—Oil Refinery.—Ashelo Refining Co., capital \$50,000, inceptd. by H. F. Rethman, C. R. Thirlwell and E. W. Vance.

Okla., Waurika.—Geronimo Oil & Gas Co., capital \$65,000, inceptd. by C. S. Storms, J. M. Dyer and P. F. Dawson.

Okla., Tulsa.—Westhoma Petroleum Co., capital \$50,000, inceptd. by W. V. Thornton, C. F. Dots and C. R. Thirlwell.

Okla., Yale.—Oil Refinery.—Worth Oil & Refining Co., capital \$50,000, inceptd. by Thad Cahler of Ninnekah, Okla., Herman Weiss and P. M. Waltrip of Fort Worth, Tex.

Okla., Yale.—Tripp Oil & Gas Co. chartered with \$150,000 capital by E. F. Tripp of Yale, F. R. Shidell and A. M. Richards of Cleveland, Okla.

Tenn., Nashville.—Tennessee & Kentucky Oil Co., capital \$300,000, inceptd. by W. R. Tate, J. Taylor Stratton, H. O. Blackwood and others; has 17,000 acres oil and gas lands in Kentucky and Tennessee.

Tenn., Nashville.—Tuxbury Oil & Gas Corporation organized; capital \$3,000,000; H. C. Tuxbury, Pres., Waldorf-Astoria Hotel; John C. Eames, Secy.-Treas., 320 Broadway; both of New York; C. W. Deming, Gen. Mgr., Tulsa, Okla.; develop 300,000 acres oil and gas leases in Tennessee.

Tex., Ballinger.—Runnels County Oil Co. organized to develop 40,000-acre oil lease; O. L. Parish, Pres.; N. K. Freeman, Secy.-Treas.

Tex., El Paso.—Rio Grande Oil Co. increased capital from \$20,000 to \$100,000.

Tex., Houston.—Keystone Petroleum Co., capital \$100,000, inceptd. by J. M. Puryear and others.

Tex., Houston.—Keystone Petroleum Co. chartered with \$100,000 capital by J. M. Puryear, J. J. Scholl, Jr., and A. Zylis.

Tex., Houston.—Prudential Oil Co. of Texas, capital \$10,000, inceptd. by F. E. Wuerth, F. H. Holmes and C. H. Taylor.

Tex., Mineral Wells.—Oil Refinery.—Bankers' Oil & Refining Co., capital \$500,000, incorporated by B. S. Walker, J. W. Smith and H. H. Hardin.

Tex., Port Aransas.—Oil Tanks.—Texas Company, Houston, will build 55,000-bbl. tank and other additional tanks for oil from Tampico, Mexico.

Tex., Ranger.—Ranger Mineral & Oil Co., Box 140, organized; capital \$100,000; J. S. Moss, Pres., 1000 Main St., Big Spring, Tex.; H. W. Scarborough, V.-P. and Mgr.; M. H. Hagaman, Secy.-Treas.; develop 320 acres, mainly oil and gas. (See Mining.)

Tenn., Knoxville.—Armour & Co. (main office, Chicago) will erect addition to building at 115-117 Jackson Ave.; plans being prepared.

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equipment of blowers, stoves, etc. See Mining. (See Machinery Wanted—Furnace.)

LAND DEVELOPMENTS

Fla., Vero.—East View Co., capital \$10,000, inceptd.; John P. Sawyer, Pres.; E. E. Strong, V.-P.; W. H. Humiston, Secy.-Treas.

Okla., Peoria.—Peoria Townsite & Royalty Co., capital \$300,000, inceptd. by Oscar Lowry and T. F. Gafford of Peoria, and B. C. Stafford, Seneca, Mo.

S. C., Charleston.—Riverview Company, capital \$50,000, inceptd.; John McCrady, Pres.; Henry Cheves, Jr., V.-P. and Treas.; G. A. Bamberg, Secy.

S. C., Dillon.—Riverside Cemetery Co., capital \$200, inceptd. by A. V. Bethea, J. H. Regan and A. B. Jordan.

Va., Norfolk.—Easton Place, capital \$75,000, inceptd.; J. E. Townsend, Pres.; C. E. Townsend, Secy.

Va., Petersburg.—St. Mary Development Co., capital \$600,000, inceptd.; Jas. H. Becker, Pres., New York; Jos. D. Skinner, Secy., St. Marys, Ga.

W. Va., Charleston.—South Side Highlands Co., capital \$75,000, inceptd. by T. B. Bowman, D. B. Shaw, D. K. McCarty and others.

W. Va., Charleston.—Goshorn Land Co., capital \$25,000, inceptd. by Donald W. Goshorn, Lucy H. Goshorn, E. L. Lamb and others.

W. Va., Ronceverte.—Sunset Farm, capital \$500, inceptd. by A. M. Caldwell, C. A. Livey and L. M. Rowan of White Sulphur Springs, W. Va., and others.

THE OFFICIAL PROPOSAL ADVERTISEMENTS

Appear This Week On Page 103

Notices of bond sales, construction and improvement contracts to be let, equipment and supplies to be purchased, franchises offered, etc., inserted in this department bring bids from the most important bond buyers, investors, financial institutions, contractors, engineers, architects, manufacturers, and supply houses throughout the country.

Rate 25 cents per line per insertion.

The PROPOSAL department goes to press 5 P. M. Tuesday for the issue of the following Thursday. If you cannot mail advertisement in time for any particular issue, please wire copy by day letter.

Send for booklet of testimonial letters from public officials who have used the PROPOSAL department of the Manufacturers Record, for bond sales, construction work, etc.

LUMBER MANUFACTURING

Ala., Hurtsboro.—Young-Johns Lumber Co. organized; T. B. Lovelace, Pres., Tribble, Ga.; B. B. Doggett, V.-P., Caroleen, N. C.; C. J. Young, Secy.; C. W. Johns, Treas.; both of Hurtsboro; erect 30x50-ft. wood-construction planer shed by company force; install planer, trimmer and conveyor system, etc.; daily capacity 50,000 ft. short-leaf pine boards. Lately noted inceptd., capital \$4,000. (See Machinery Wanted—Boilers and Engines; Planer, etc.)

Ark., Little Rock.—Planters' Lumber Co., capital \$10,000, inceptd.; R. H. Sutton, Pres.; L. H. Williams, V.-P.; R. J. Williams, Secy.; F. M. Sutton, Treas.

Ark., Marvell.—Arkansas Hickory Co. increased capital from \$5000 to \$20,000.

Fla., Kissimmee.—R. J. Clifford (Pres. Atlantic Coast Lumber Co.), Georgetown, S. C.; F. E. Creelman (Pres. High Point Hardwood Lumber Co.), High Point, N. C.; E. D. Broadhurst, Greensboro, N. C., and others organized company to develop 7160 acres timber land; plan to build sawmill with daily capacity 30,000 to 40,000 ft. lumber.

Ga., Cusseta.—Burgin Lumber Co., capital \$100,000, organized by Joe S. Burgin and J. F. Alexander; will install planing mill.

Ga., Savannah.—Daniel Siding Lumber Co., capital \$10,000, inceptd.

Ky., Buckhorn.—Buckhorn Coal & Lumber Co. (W. C. Begley and others) has 11,000 acres oak timber, etc., mainly in Leslie County; contemplates manufacture of railroad cross-ties. (See Coal Mines and Coke Ovens.)

Ky., Cynthia.—McCormick Lumber & Supply Co., capital \$28,000, inceptd. by S. Fred McCormick and others.

Ky., Whitesburg.—Tug River Lumber Co. purchased several thousand acres hardwood timber land on Johns Creek and Blackberry River; build tram railway and band mill with daily capacity 30,000 ft. lumber.

La., Monroe.—Forest Lumber Co., J. B. White, Pres., Kansas City, Mo., and others purchased 102,000 acres long-leaf pine timber land in Louisiana.

Miss., Aventura.—R. C. Aventura purchased 5000 acres timber land; will develop; build mill. N. C., Roanoke Rapids.—Kimberly Company, capital \$10,000, inceptd. by J. Taylor, M. E. Taylor and Fred. Peck.

Okla., Carmen.—Greener-Putnam Lumber Co., capital \$21,000, inceptd. by Chas. Greener of Carmen, J. V. Greener of Commerce, Okla., and H. W. Putnam of Carthage, Mo.

Tenn., Memphis.—Arkansas Ash Co., capital \$50,000, inceptd. by W. H. Shippen, E. S. Shippen, H. E. Humphreys and others.

Tex., Paducah.—Drummond-Crump Lumber Co. increased capital from \$10,000 to \$25,000.

Tex., Gladwell.—Grogan-Cochran Lumber Co. increased capital from \$20,000 to \$60,000.

Tex., Ore City.—Southern Dimension Oak Co. increased capital from \$6000 to \$35,000.

Tex., Orange.—Tulane Lumber Co. purchased and will develop additional timber land.

Va., Dublin.—Graham Lumber Co., Graham, Va., will install circular mill of 10,000 ft. daily capacity; under Pulaski, lately noted as acquiring timber rights. (See Machinery Wanted—Pump; Pipe.)

W. Va., Charleston.—Morgan Lumber Manufacturing Co. will rebuild 2 drykilns reported burned at loss of \$25,000.

W. Va., Charleston.—Yellow Pine Lumber Co. will rebuild plant reported burned at loss of \$10,000 to \$12,000, including lumber.

METAL-WORKING PLANTS

N. C., Greensboro.—Chains.—Morse Chain Co., Ithaca, N. Y., contemplates establishing branch factory.

MINING

Ala., Pyrites.—Pyrites.—National Pyrites & Copper Co., 1605 American Trust Bldg., Birmingham, Ala., increased capital from \$30,000 to \$60,000; develop 1600 acres pyrites land; daily output, 50 to 100 tons.

Ark., Flippen.—Zinc.—Marion Zinc Co., Marion Ark., is reported to develop additional zinc mine.

Ga., Lincoln County.—Manganese.—J. R. Whitman of Atlanta and others leased 80 acres manganese property and will develop; install hydraulic machinery.

Ky., Hopkinsville.—Fluorspar.—Federal Spar Co. inceptd. with \$150,000 capital by T. J. McReynolds, J. T. Wall and W. T. Fowler.

Mo., Brandsville.—Iron.—Missouri Iron & Steel Corp., Hicks Clark, Secy., 1411 International Life Bldg., St. Louis, will develop 8000 acres iron ore in Howell and Oregon counties. (See Iron and Steel Plants.)

Okla., Cordell.—Lead and Zinc.—Mid-West Lead & Zinc Co., capital \$100,000, inceptd. by J. T. Bailey and O. F. Renegar of Cordell, and A. A. Weber of Guthrie, Okla.

Okla., Guthrie.—Guthrie Mining & Investment Co., capital \$3000, inceptd. by George McGregor, J. W. Woodworth and E. J. Allen.

Okla., Holdenville.—Miami Sunrise Mining Co. chartered with \$150,000 capital by T. S. Adams, C. C. Stanford and J. C. Elliston.

Okla., Mangum.—De Arman Manufacturing Co. increased capital from \$100,000 to \$200,000.

Okla., Miami.—Lucy Tom-Boy Mining Co., capital \$150,000, inceptd. by S. E. Sheets of Miami, Thos. H. Williams and L. H. Williams of Emporia, Pa.

Okla., Miami.—Blue Bonnet Mining Co., capital \$500,000, inceptd. by W. H. Logan and J. W. Morris of Miami, and Geo. Pearson of Joplin, Mo.

Okla., Miami.—Lucy Jennie Mining Co., capital \$200,000, inceptd. by Ira Turner, J. M. Byrd and S. W. Bates, all of Stonewall, Okla.

Okla., Miami.—Brasleton Mining Co. chartered by B. E. Brasleton, T. P. Turner and C. B. Turner; capital \$100,000.

Okla., Miami.—Lead and Zinc.—Allen Lead & Zinc Mining Co. chartered with \$100,000 capital by M. B. McKinney, H. A. Stokes and C. M. Means.

Okla., Miami.—Lead and Zinc.—Western Oklahoma Lead & Zinc Co., Elk City, Okla., organized; Dan McGrady, Pres., Port, Okla.; Roy Walter, Secy.-Treas.; develop 80-acre lease. (In March noted inceptd., \$25,000 capital.)

Okla., Miami.—Lead and Zinc.—Liberty Mining & Royalty Co., Room 502 Egbert Hotel

(P. O. Box 362), Oklahoma City, organized; W. M. Gwyn, Prest., Ardmore, Okla.; W. C. Lugenbyhl, V.-P., Chickasha, Okla.; A. C. Vaughan, V.-P., Anadarko, Okla.; Jas. T. Kelly, Secy.-Treas., Oklahoma City; J. L. Mitchell, Field Mgr.; develop 308 acres. In February noted inceptd., capital \$150,000. (See Machinery Wanted—Drills.)

Okla., Miami—Lead and Zinc.—Gainesville Lead & Zinc Co., capital \$150,000, inceptd.; H. P. Ware, Prest.; Tom Sears, S. J. Kennerly and R. F. Jenkins, V.-Ps.; S. M. King, Treas.; O. Saunders, Secy.; all of Gainesville, Tex.

Okla., Oklahoma City.—Picher Big Chief Mining Co., capital \$200,000, inceptd. by T. E. Sullivan of Oklahoma City, L. P. Cook of Purcell, Okla., and J. M. Curtis of Wayne, Okla.

Okla., Oklahoma City.—O. B. Rose Mining Co. increased capital from \$125,000 to \$250,000.

Okla., Ottawa—Lead and Zinc.—West Virginia Lead & Zinc Co., capital \$300,000, inceptd. by Chas. Heinselman of Washington, W. Va., J. A. Barnett of Hartley, W. Va., and others.

Okla., Treece—Lead and Zinc.—Sunny Jim Lead & Zinc Co. organized; Leroy Cole, Prest.; C. D. Coll, V.-P., and J. A. Smith, Secy.-Treas.; all of Oklahoma City; leased 40 acres mining property and will develop.

S. C., Anderson—Mica.—Anderson County Mica Co. organized with J. J. Fretwell, Prest.-Treas.; W. T. Hipp, V.-P.; J. J. Fretwell, Jr., Secy. (Lately noted inceptd.)

Tenn., Mountain City.—West Tennessee Mining Co., capital \$30,000, inceptd. by R. E. Donnelly, A. G. Donnelly, R. H. Butler and W. W. Hankins.

Tex., Ranger—Ranger Mineral & Oil Co., Box 140, J. S. Moss, Prest., 1000 Main St., Big Spring, Tex., will develop 320 acres, mainly oil and gas property. Lately noted inceptd., capital \$100,000. (See Gas and Oil Developments.)

Tex., Laredo—Lead, Silver, Zinc.—Stucky-Hamilton Mining & Milling Co. (lately noted inceptd., capital \$500,000) organized; H. A. Stucky, Prest.-Mgr., 1013 Farragut St., Laredo; E. T. Hamilton, V.-P., Chicago; John Hamilton, Secy.-Treas., Dallas, Tex.; develop 200 acres lead, silver and zinc lands at Lampazos, N. L. Mexico; daily output 100 tons. (See Machinery Wanted—Tramways; Pumps; Cars.)

Va., Star Tannery—Ferro-manganese, etc. Mineral Ridge Manganese Corporation, Chas. F. Nelson, Secy., Strasburg, Va., further advises Manufacturers Record as to plans: Whilst considering erection of furnace to produce ferro-manganese and spiegel, also contemplate purchase of hot-blast iron furnace with 50 to 100 tons daily capacity; furnace to be in good condition and capable of repairs. Lately noted organized, capital \$250,000, W. B. Shaffer, Prest., Nazareth, Pa., to develop 700 acres; mining 15 to 20 tons daily; near future 40 to 60 tons. See Iron and Steel Plants. (See Machinery Wanted—Furnace.)

MISCELLANEOUS CONSTRUCTION

Ala., Chickasaw—Channel.—Emergency Fleet Corporation, I. W. Hubbard, Engr., will expend \$100,000 to dredge Chickasabogue Creek, providing channel for ocean vessels; large turning basin.

Fla., Sarasota—Seawall, etc.—C. N. Payne will construct seawall, basin and dock; concrete construction.

La., New Orleans—Industrial Canal.—Commissioners of Port engaged Geo. W. Goethals & Co., New York, as engineers to construct industrial canal estimated to cost \$2,600,000. (Lately noted approving plan for financing, etc., for this canal, which is to provide facilities for securing water-front industrial plants.)

La., Pointe a la Hache—Dipping Vats.—Plaquemines Parish Police Jury will construct 19 dipping vats costing about \$350 each; brick and concrete; construction by Parish under supervision of Police Juror; issue \$7000 bonds.

Tex., Dallas—Wharf.—Seaboard Transportation & Shipping Co. will build \$10,000 wharf.

Tex., Port Lavaca—Slip.—Fisher Channel & Dock Co. (C. E. Fisher and others) let contract to Smith March Dredging Co., Port Lavaca, to dig slip about 240x250 ft., 5 ft. deep. (Lately noted.)

Va., Yorktown—Wharf.—Navy Dept., Washington, D. C., will build fuel-oil wharf; 500 ft. long; 40 ft. wide; approach 2200 ft. long and 20 ft. wide; cost \$152,000.

MISCELLANEOUS ENTERPRISES

Ala., Birmingham—Contracting.—Alabama Finley Method Co., capital \$2000, inceptd.; J. R. Copeland, Prest.; B. H. Cooper, V.-P.; G. R. Copeland, Secy.-Treas.; general contracting for roads, sidewalks, sewers, etc.

Ala., Huntsville—Publishing.—Mercury Publishing Co. organized with \$25,000 capital; E. D. Johnston, Editor; P. O. Aiken, Mgr.; publish daily newspaper.

Fla., Miami—Plumbing.—Quinn-Callahan Plumbing Co., capital \$25,000, inceptd.; Jno. J. Quinn, Prest.; Geo. J. Callahan, Secy.-Treas.

Ky., Covington—Foundry Supplies.—Foundry Equipment & Metals Co., capital \$10,000, inceptd. by Archer E. Clifton and others.

Ky., Louisville—Transfer.—Moss Transfer Co., capital \$5000, inceptd. by H. C. Moss, W. T. Moss and W. J. Garrabrant.

La., Alexandria—Laundry.—Bell Laundry Co., 1603 Gould Ave., organized; F. M. Bell, Secy.-Mgr., 728 Murray St.; erect ordinary frame construction building; install laundry machinery, cost \$5000. (Lately noted inceptd., capital \$5000.)

Miss., Biloxi—Hardware.—Combel Hardware Co., capital \$20,000, inceptd. by W. O. Clark, U. S. Joachim and L. F. Janin, Jr.

Okla., Blackwell—Fire Equipment.—City voted \$15,000 bonds to purchase fire equipment. Address The Mayor. (Lately noted to vote.)

S. C., Marion—Printing.—National Printing & Stamp Co., capital \$2500, inceptd. by J. H. Angel and L. E. Angel.

S. C., Manning—Livestock.—Thomas Livestock Co., capital \$40,000, inceptd.; F. C. Thomas, Prest.; H. M. Thomas, Secy.-Treas.

Tenn., Leewood—Stockyards.—Memphis-Wyoming Stock Yards Co., capital \$300,000, will be inceptd. by W. R. McBride of Elk Mountain, Wyo. (now registered at Chisca Hotel, Memphis, Tenn.); W. A. Haggott of Denver, Col., and others; purchased 70 acres at Leewood and will improve for stockyards; erect pens, offices, feed barns, scales, etc.; first unit to cost \$75,000.

Tenn., Nashville—Laboratories.—Ivey Laboratories, capital \$100,000, inceptd. by Barna Pitt Ivey, Frank C. Allison, Albert F. Lee and others.

Tex., Dallas—Laundry.—Dallas County will erect laundry at Woodlawn Hospital; Chas. E. Gross, County Auditor, receives bids until April 8 to erect building and furnish and install machinery; F. J. Woerner, Archt., Sumpter Bldg., Dallas. (See Machinery Wanted—Laundry Equipment.)

Tex., Houston—Construction.—McKee-Finn Construction Co., capital \$100,000, inceptd. by R. E. Goree, C. F. McKee and J. F. Finn.

Tex., Waco—Grain Elevator.—Clement Grain Co. will rebuild grain elevator reported damaged to extent of \$40,000.

Va., Norfolk—Construction.—Johnson Construction Corporation chartered; capital \$10,000; Jesse Johnson, Prest.; R. P. Johnson, Secy.

Va., Newport News—Milk Products.—Sanitary Milk Products Co., 24th St. and Virginia Ave., organized; D. H. Robshaw, Prest.; W. G. Hogge, V.-P.; W. H. L. Kent, Secy.-Mgr.; has building; let contract to C. C. Vellines, Newport News, for improvements, costing \$2500; install pasteurizing plant and ice-cream machinery, cost \$15,000; equipment purchased; daily capacity milk and ice cream 4000 gals. (Lately noted inceptd., capital \$25,000.)

Va., Norfolk—Construction.—Glenwood Construction Corp., capital \$30,000, chartered; E. K. Zirkle, Prest.; A. Drysdale, Secy.-Treas.

Va., Richmond—Laundry.—York Laundry & Ice Mfg. Co., capital \$50,000, inceptd.; F. C. Neister, Prest.; R. Rudd, Secy.

W. Va., Charleston—Construction.—Superior Construction Co., 27½ Capital St., inceptd., capital \$50,000; U. G. Young, Prest.; H. E. Beegle, V.-P.; Geo. D. Hawkins, Secy.-Treas.

W. Va., Oak Hill—Cleaning and Dyeing.—F. H. Johnson will re-establish cleaning and dye works reported burned.

MISCELLANEOUS FACTORIES

Ala., Birmingham—Beverages.—Alabama Products Co., capital \$10,000, inceptd.; John B. Paradise, Prest.; Jos. D'Amico, V.-P. and Treas.

Ala., Birmingham—Tool Specialties.—Tool Specialty Co., capital \$5000, inceptd.; L. E. Geohagan, Prest.; W. H. Moore, Secy.-Treas.

Ark., Pine Bluff—Fort Scott Sorghum Co., Fort Scott, Kan., is considering establishment of branch sorghum and syrup plant.

Ky., Louisville—Confections.—Louisville Dainty Co., capital \$10,000, inceptd. by Ray Bizot, C. N. Boone and L. J. Bergenroth.

La., Lake Charles—Chemicals.—Lambert Chemical Co., St. Louis, Mo., completed arrangements for erection of branch plant; first building to be 50x120 ft.; corrugated-iron frame; concrete foundation; site has frontage 800 ft. (Lately noted to build plant.)

Mo., Carthage—Shoes.—William Kaut Shoe Co., capital \$75,000, inceptd. by Wm. Kaut, J. E. Lang, A. A. Ramsay and others; will erect \$40,000 building and equip to manufacture shoes. (Mr. Kaut lately reported to have organized \$75,000 company to build shoe factory.)

Mo., Joplin—Overalls.—Obermann Manufacturing Co., Jefferson City, Mo., plans to establish overall factory; has 2-story 100x120-ft. building.

Mo., St. Louis—Vending Machines.—O. Holm Jensen, 3616 Rebecca St., contemplates production of small vending machines, with nickel-plated base and glass top. (See Machinery Wanted—Vending Machine Manufacture.)

Mo., St. Louis—Clothing.—Goldstein Bros. & Becker Manufacturing Co., capital \$4000, inceptd. by Sam Goldstein, Harry Becker and others; manufacture women's clothing.

N. C., Mt. Airy—Bags.—Golden Belt Manufacturing Co., Durham, N. C., will establish tobacco-bag factory.

N. C., Reidsville—Tobacco.—American Tobacco Co., 200 5th Ave., New York, will establish branch factory; has building and will install equipment to include 10 packing machines.

Okla., Picher—Bottling.—Redell Manufacturing & Supply Co., Joplin, Mo., will establish bottling plant; has temporary building.

Tenn., Kingsport—Chemicals.—Federal Dyestuffs & Chemical Corporation has not completed refinancing; Frank H. Platt and Jno. W. Herbert, receivers, 2 Rector St., New York, advise Manufacturers Record: Refinancing negotiations progressing, but not concluded. (Lately noted as refinanced with \$5,000,000 capitalization; to increase capacity and add new products for war purposes; reported to develop 1000 acres for new plant site and industrial city; E. I. du Pont de Nemours & Co., Wilmington, Del., said to be interested under new capitalization; Chas. Eyer, Engr. of Federal company, 904 Maple St., Kingsport, advises Manufacturers Record: Nothing official ready for publication.)

Tenn., Memphis—Oxygen.—Memphis Oxygen Co., capital \$75,000, inceptd. by H. S. Sims, Franklin Holliday, Wm. P. Metcalf and others.

Tex., Dallas—Beverages.—Texas Parlay Co. (lately noted inceptd.) organized; Louis A. Boli, Jr., Prest. and Gen. Mgr., Slaughter Bldg.; erecting plant described in February with contract then let to Self Brothers of Dallas; buildings of interlocking tile construction, cost \$20,000; purchased bottling machinery, cost \$20,000; daily output 2000 cases; increase capital from \$50,000 to \$100,000 and erect plant at Fort Worth. (See Tex., Fort Worth.)

Tex., Hale Center—Sorghum Mill.—Joe Lee Ferguson contemplates installation of steam sorghum mill; daily capacity 400 to 500 gals. (See Machinery Wanted—Sorghum Evaporators, etc.)

Tex., Fort Worth—Soft Drink Bottling.—Texas Parlay Co., Louis A. Boli, Jr., Prest. and Gen. Mgr., Slaughter Bldg., Dallas, Tex., will increase capital from \$50,000 to \$100,000, and erect plant at Fort Worth. (See Tex., Dallas.)

Tex., Houston—Overalls.—Cyrus W. Scott Mfg. Co. increased capital from \$200,000 to \$700,000.

Tex., Van Alstyne—Sorghum Mill.—R. E. L. Binnion, R. F. D. No. 1, contemplates installation of steam evaporator plant to replace present machinery in sorghum mill. (See Machinery Wanted—Sorghum Evaporators, etc.)

Va., Farmville—Bottling.—Farmville Taka-Kola Bottling Works, capital \$10,000, inceptd.; A. S. Watkins, Prest.; Geo. L. Stuart, Secy.

Va., Hopewell—Explosives.—E. I. du Pont de Nemours & Co., Wilmington, Del., will erect mill construction buildings; let contract to The Austin Co., Euclid Ave., Cleveland, Ohio; F. G. Palmer, Construction Engr., care of E. I. du Pont de Nemours & Co., Hopewell. (Lately noted to erect addi-

tional \$50,000 buildings at explosives factory.)

Va., Newport News—Ice Cream.—Sanitary Milk Products Co., D. H. Robshaw, Prest., 24th St. and Virginia Ave., will manufacture ice cream; purchased ice-cream and milk-pasteurizing plant equipment, cost \$18,000. (See Miscellaneous Enterprises.)

Va., Richmond—Waterproofing Materials.—Gary Waterproofing Corporation, capital \$500,000, chartered; John B. Lightfoot, Jr., Prest.; J. R. Tucker, Secy.-Treas.

Va., Rocky Mount—Medicine.—J. Kyle Montague Medicine Co., capital \$100,000, incorporated; N. P. Angle, Prest.; Geo. W. Gilbert, Secy.

W. Va., Parkersburg—Glass.—Brown Flint Glass Co., capital \$50,000, inceptd. by W. J. Brown, C. C. Brown, T. M. Brown, all of Vienna, W. Va.; F. A. Brown, Williams-town, W. Va., and others.

MOTOR CARS, GARAGES, TIRES, ETC.

Ala., Birmingham—Automobiles.—Preston Motor Car Co., 1015 40th St., organized with Chas. E. Dexter, Prest.; P. L. Sturkey, V.-P.; E. E. Cobb, Secy.; Niles G. Parker, Treas.; purchased 7-acre site with factory buildings; remodel structures; equip to manufacture light cars and ¾-ton trucks; plans output of 5000 cars for first year.

Ark., Little Rock—Automobiles.—Mutual Motor Co., capital \$50,000, inceptd.; F. H. Hazer, Prest.; G. C. Byrd, V.-P.; P. E. Henson, Secy.-Treas.

Fla., Kissimmee—Garage.—Mach Bros. let contracts for rebuilding garage; W. L. Nelson will supervise construction and A. L. Davidson the brick work; both of Kissimmee; front portion of structure will be 75x80 ft., 2 stories; rear 75x62 ft., 1 story; total 75x142 ft.; brick; 2 portions of building to be separated by fire wall. (Lately noted to rebuild burned garage.)

Fla., Dunedin—Automobiles.—Auto Sales Corp., capital \$4000, inceptd.; R. C. Skinner, Prest.; L. B. Skinner, V.-P.; F. L. Skinner, Secy.-Treas.

Fla., Miami—Automobiles.—Ferris Auto Livery Co., capital \$1000, inceptd.; John C. Ferris, Prest.; Clara E. Ferris, V.-P.; Jessie C. Ferris, Secy.-Treas.

Fla., Oldsmar—Automobiles.—Kardell Tractor & Truck Co., H. R. Setz, Chief Engr., Wayside Inn, will build foundry; install 7-ton cupola; ordered this equipment.

Ga., Macon—Garage.—H. J. Lamar Co. will erect garage; fireproof; 3 stories; reinforced concrete; purchased site 87½x215 ft.

La., Monroe—Garage.—S. C. Blackmon Auto Co. will erect garage and automobile salesroom; 1 story; 60x140 ft.; brick; plans being prepared.

Md., Baltimore—Repair and Machine Shop. Rues Brothers, 150 Mount Royal Ave., will rebuild machine and automobile repair shop reported burned at loss of \$5000.

Md., Baltimore—Leather Tires.—King Leather Tire Co., capitalization \$1,500,000, incorporated; John O. King, Prest.; A. S. Goldsborough, V.-P.; manufacture leather tires for automobiles; office and works in Old City Hall.

Md., Berlin—Garage.—Standard Oil Co., Baltimore, let contract Price Construction Co., Maryland Trust Bldg., Baltimore, to erect public garage; 25x31 ft.; 1 story.

Md., Bethesda—Garage.—Standard Oil Co., Baltimore, let contract Price Construction Co., Maryland Trust Bldg., Baltimore, to erect public garage; 25x31 ft.; 1 story.

Md., Easton—Garage.—Standard Oil Co. let contract Price Construction Co., Maryland Trust Bldg., Baltimore, to erect garage; 25x31 ft.; 1 story.

Md., Hurler—Garage.—Standard Oil Co., Baltimore, let contract Price Construction Co., Maryland Trust Bldg., Baltimore, to erect public garage; 25x31 ft.; 1 story.

Md., Mt. Airy—Garage.—Standard Oil Co., Baltimore, let contract Price Construction Co., Maryland Trust Bldg., Baltimore, to erect public garage; 25x31 ft.; 1 story.

Md., St. Michaels—Garage.—Standard Oil Co., Baltimore, let contract Price Construction Co., Maryland Trust Bldg., Baltimore, to erect public garage; 25x31 ft.; 1 story.

Md., Westminster—Garage.—Standard Oil Co., Baltimore, let contract Price Construction Co., Maryland Trust Bldg., Baltimore, to erect public garage; 25x31 ft.; 1 story.

Mo., Kansas City—Automobile Salesroom, etc.—Greenleaf Motor Car Co. will erect building for automobile sales, display and service rooms; 4 stories and basement; 175x114 ft.; total floor space, 67,000 sq. ft.; reinforced concrete; cost, including site,

about \$250,000; L. W. Haverkamp, Archt.; Musby & Goodrich, Contrs.; both of Kansas City.

Mo., St. Louis—Garage.—Jos. Hanss will erect 1-story garage; cost \$5000.

N. C., Charlotte—Garage.—N. J. Sherrill will erect garage to cost \$15,000; 46x170 ft.; 2 floors; partly fireproof; no contract; Sloan S. Sherrill, Consult. Engr.

Okla., Collinsville—Automobiles.—Buckles Motor Co., capital \$25,000, inceptd. by Roy Buckles, O. Halliburton and D. L. Burgess.

S. C., Camden—Automobiles.—Camden Motor Car Co., capital \$5000, inceptd. by S. R. Beard, W. R. De Loache and L. A. Kirkland.

S. C., Florence—Automobiles.—Florence Overland Sales Co., capital \$5000, inceptd. by C. E. Commander and W. B. Rollins.

Tex., Dallas—Automobiles.—Majors Motor Co., capital \$20,000, inceptd. by J. A. Majors, L. B. Shaver and Susie Shake.

Tex., El Paso—Garage.—M. D. Mosley will erect garage and carpenter shop; cost \$3000.

Tex., Fort Worth—Automobile Supplies.—Texas Auto Supply Co. will construct 2-story 20x50-ft. brick building.

Tex., Houston—Automobiles.—Standard Auto Livery Co. chartered with \$20,000 capital by J. M. Dyer, C. C. Dyer and R. L. Swor.

Va., Norfolk—Motor Trucks.—Motor Truck Corporation, capital \$50,000, chartered; Morris Sellman, Pres.; S. R. Haller, Secy.-Treas.

Va., Roanoke—Garage.—Yost-Huff Co., W. P. Huff, Pres.-Mgr., 19 Church Ave., let contract to E. M. Herringdon to construct 50x200-ft., 3-story brick and cement building costing \$30,000. (Lately noted.)

ROAD AND STREET WORK

Ala., Birmingham.—Jefferson County Board of Revenue will receive \$8000 Government and \$2800 State appropriations to extend Birmingham-Montgomery Highway.

Ala., Gadsden.—Etowah County will construct 4.7 mi. of Attalla and Hokes Bluff Road, being portion of State Trunk Road Nos. 5 and 23; 7.8 acres of clearing and grubbing, 437 ft. vitrified pipe, 15,344 cu. yds. earth excavation, 79 cu. yds. concrete, 6000 cu. yds. clay gravel, 650 cu. yds. slag, 26,278 sq. yds. bituminous surface treatment; bids until May 7; W. S. Keller, State Highway Engr., Montgomery, Ala. (See Machinery Wanted—Road Construction.)

Fla., Pensacola.—City, L. E. Thornton, Engr., has \$10,000 available for paving, contract lately noted let to John Gerkens, Pensacola, Fla.; one-course concrete; 2500 lin. ft. curbing; 3000 yds. pavement 8 in. thick.

Fla., Tampa.—City will pave Keys St., Highland Ave. to Ola St., cement concrete, 24 ft. wide, 950 sq. yds.; Ola St., Keys to West St., cement concrete, 18 ft. wide, 450 sq. yds.; West St., Ola St. to Massachusetts Ave., cement concrete, 20 ft. wide, 1600 sq. yds.; Board of Public Works, D. B. McKay, Chrmn., receives bids until April 2. (See Machinery Wanted—Paving.)

Ga., Atlanta.—City let contract T. D. Meador Construction Co. of Atlanta to pave Peachtree St. from Five Points to Ellis St. with asphalt, granite cubes between street-car tracks; H. B. Collier, Ch. of Constr.

Ga., Atlanta.—Fulton County Comms. let contract Jamison & Hollowell, Montgomery, Ala., to pave Peachtree Road, from city limits to Buckhead; 4 sections of 15,000 yds. each; width 20 ft. on each side of car tracks; concrete base; bitulithic surface; cost \$200,000. (Noted in February as inviting bids.)

Md., Baltimore.—City let contract to Howard O. Firor & Co., Pratt and Mount Sts., Baltimore, at \$39,750, to excavate 75,000 cu. yds. earth and stone for grading parkway; Rosedale to Poplar Grove Sts.; part of \$500,000 project to connect Gwynn's Falls and Druid Hill Parks by 120-ft. driveway.

Md., Rockville.—Montgomery County Commissioners contemplate bond issue to construct roads. Address County Comms.

Miss., West Point.—Clay County Road District No. 2, J. L. Howard, Clerk Board Supervisors, will construct 2 mi. 12-ft. macadam road; \$15,000 available; day labor, supervised by Road Commr. J. T. Watkins. (Bonds lately noted issued.)

Mo., Carthage.—Jasper County, Joplin Special Road Dist., John M. Malang, Mgr., let contract Sherwood-Myers-O'Day Construction Co., Springfield, Mo., at \$107,556, to build 7½ mi. concrete roadway, 18 ft. wide, with culverts, etc.; Sansom & Funk, Engrs., Joplin. (Supersedes recent item.)

Mo., New Madrid.—New Madrid County Comms., I. L. Ransburgh, Clerk, advise Manufacturers Record: County voted \$850,000 bonds; issued \$200,000; soon employ engineer and proceed with road improvements. (Lately noted issuing \$200,000 bonds.)

N. C., Lillington.—Harnett County, Grove Township, voted \$30,000 bonds to build and improve roads. H. C. Roberts, Chrmn., Road Comms.

S. C., Gaffney.—Cherokee County Highway Comms. let contract to C. C. Jordan, Wadesboro, N. C., for 8 to 10 mi. road; clay-gravel, sand-clay and top soil; cost \$25,000; N. C. Hughes, Jr., Engr., Gaffney. (Bids noted in March.)

S. C., Orangeburg.—City, R. R. Bruner, official in charge, will expend \$10,000 on street improvements; Edw. Hawes, Jr., City Engr. (Lately noted to construct cement sidewalks.)

Tex., Athens.—Henderson County Road District No. 10, J. A. McDonald, County Judge, let contract to Smith Brothers, Crockett, Tex., to construct 23 mi. sand-clay roads; \$40,000 available; Wilder & O'Neal, Engrs., Houston, Tex. (Bonds for \$40,000 lately noted issued.)

Tex., Athens.—Henderson County Road District No. 7, J. A. McDonald, County Judge, let contract to Smith Brothers, Crockett, Tex., to construct 30 mi. sand-clay roads; \$50,000 available; Engrs., Wilder & O'Neal, Houston, Tex. (Bonds for \$50,000 lately noted issued.)

Tex., Baird.—Callahan County, Road District No. 1, voted \$100,000 bonds to construct roads. Address County Comms.

Tex., El Paso.—City will pave Lowenstein St., from Mesa Ave. to School of Mines; R. M. Williams, City Engr., submitted estimates of cost.

Tex., Hemphill.—Sabine County, W. R. Cousins, County Judge, has \$500,000 available to construct sand and clay roads; Lamar Acker, Engr., Calvert, Tex. (Bonds noted voted in January.)

Tex., Linden.—Cass County voted \$50,000 bonds to construct road from Queen City to Pace's Ferry. Address County Comms.

Tex., Lufkin.—Angelina County voted \$60,000 bonds to construct road from Lufkin to Angelina River. Address County Comms. (Lately noted.)

Tex., Oakville.—Live Oak County, Road Dist. No. 5, Pat Grover, County Comms., let contracts to Alamo Construction Co., San Antonio, Tex., and Bligham Bros., Rogers, Tex., for 20 mi. graded earth roads; \$20,000 available; Engr., J. M. Hall, Three Rivers, Tex. (Lately noted.)

Tex., Rockport.—Aransas County voted \$30,000 bonds to construct first link in Jefferson Davis Memorial Highway. Address County Comms.

Tex., San Antonio.—City, Hans Helland, City Engr., will vote on \$500,000 bonds for paving, street widening and fire apparatus.

Va., Arlington.—Cantonment Div., War Department, Washington, D. C., let contract J. M. Johnston of Arlington at \$10,000 to repair Georgetown and Alexandria turnpike and roadway to Arlington National Cemetery.

Va., Portsmouth.—Norfolk County Commissioners have legislative authority to issue \$1,000,000 road bonds.

Va., Wise.—Wise County Comms. are reported to have Legislative authority to issue \$30,000 bonds to construct roads.

W. Va., Hamlin.—Lincoln County, A. F. Black, County Clerk, let contract to Hager & Hager, Midkiff, W. Va., to construct 2 mi. road; to Adkins & Chapman, Smith, W. Va., for 8000 ft.; Wentz Construction Co., Huntington, W. Va., 2½ mi.; further construction towards Ranger, by force account; this being portion of \$2 mi. road grading and construction for which \$675,000 bonds were noted voted in 1917; bids were lately noted for section Class A road. (See Machinery Wanted—Road Machinery.)

W. Va., Wayne.—Wayne County voted \$1,000,000 bonds to construct road connecting Cabell and Mingo county lines; brick on concrete or macadam; 30 mi.; G. M. Johnson, Engr. (Noted in February as to vote.)

SEWER CONSTRUCTION

Md., Havre de Grace.—City will construct 2.23 mi. of sewers; Wm. N. Coale, Mayor, First National Bank Bldg., receives bids until Apr. 8. (See Machinery Wanted—Sewer Construction.)

Mo., Springfield.—City Comms. contemplate ordering vote on \$50,000 bonds to construct septic plant and water-works.

S. C., Rock Hill.—Wymojo Mills will construct sewer system for cotton-mill village; let contract to L. F. Waldrop, Rock Hill.

Tex., San Antonio.—City, Hans Holland, City Engr., opened bids March 25 to construct 21-in. and 12-in. sewers; cost \$10,000. (Lately noted.)

Tex., San Antonio.—City, M. C. Erwin, Sewer Engr., will vote on \$350,000 bonds for sanitary and storm sewers; Hans Helland, City Engr.

SHIPBUILDING PLANTS

Ala., Mobile.—Steel Steamships.—Henderson Shipbuilding Co. will build (United States Emergency Fleet Corporation contract) marine railway on Pinto Island; first units, lifting merchant vessels of 3500 tons, will be set of ways of Crandall type; to have auxiliary enabling dock to handle 5000-ton vessels.

Ala., Mobile.—Steel Steamships.—Alabama Dry Dock & Shipbuilding Co. increased capital from \$500,000 to \$600,000 to provide for general improvements and extensions. (Lately noted to build 5000-ton drydock.)

Fla., Tampa.—Steel Ships.—Tampa Dock Co. will expend \$100,000 for plant addition providing facilities for installation of boilers, engines, etc., in wooden and steel ships; will dredge harbor, install cranes, construct dock, etc.

Fla., Tarpon Springs.—Coasting Schooners. E. Macreneriss Shipbuilding Corp. chartered with \$50,000 capital; E. Macreneriss, Pres. and Gen. Mgr.; Nic Macreneriss, V.-P.; J. Touppouzis, Secy.-Treas.; establish shipyard for building coasting schooners. (Lately noted organized.)

Ga., Darien.—Wooden Ships.—Darien Shipbuilding Co. organized to build plant for constructing wooden ships.

La., New Orleans.—Ships.—Doullut & Williams will build shipyard on proposed \$2,600,000 industrial canal.

La., New Orleans.—Steel and Wooden Steamships.—National Shipbuilding Co., Orange, Tex., is reported planning to establish shipyard to construct both wood and steel vessels.

Miss., Pascagoula.—Steel Ships.—Gulf Shipbuilding Co., capital \$100,000, inceptd. by A. F. Dantzier, H. H. Colle and B. G. Boag.

S. C., Charleston.—Steel Ships.—Carolina Shipbuilding Co., capital \$100,000, inceptd.; Philip H. Gadsden, Agt., 18 Broad St.

TELEPHONE SYSTEMS

Ky., Linton.—Linton Telephone Co. inceptd. with \$3000 capital by R. L. Nunn and others.

Mo., St. Louis.—Southwestern Telephone & Telegraph Co. will erect addition to telephone exchange; cost \$9000; Murch Brothers, Contrs., St. Louis.

Tenn., Chattanooga.—Cumberland Telephone Co., Gray Gentry, Dist. Mgr., lately noted as to remodel leased portion of building, is removing business offices from main exchange into new quarters to make additional space in main building for operators' school, restrooms, checkrooms, etc.

Va., Stewartsville.—Stewartsville Telephone Co., capital \$5000, inceptd.; R. B. St. Clair, Pres.; S. W. Huddleston, Secy.

Va., Whitacre.—Whitacre Telephone Co., capital \$5000, inceptd.; W. C. Whitacre, Pres.

TEXTILE MILLS

Md., Odell.—Woolen Cloth.—Odell Mills let contract to Consolidated Engineering Co., Calvert Bldg., Baltimore, to construct buildings; 4-story, 156x21½-ft. main mill; 4-story, 135x60-ft. finishing mill; 5-story, 103x60-ft. dye-house and storage building; 47x29-ft. boiler-house; 103x60-ft. building of reinforced concrete; others of slow-burning brick, steel and wood construction; cost \$260,000; install 3900 spindles, 60 looms, electric-power drive, etc., costing \$225,000; daily capacity 3000 yds. woolen cloth; ordered machinery; Chas. J. Main, Archt.-Engr., 201 Devonshire St., Boston. (Lately noted to rebuild burned \$500,000 plant, Chas. J. Main to prepare plans, other details, etc.)

N. C., East Durham.—Hosiery.—Louise Knitting Mills Co. increased capital from \$50,000 to \$150,000. *U. S. Mill*

N. C., High Point.—Hosiery.—J. Elwood Cox Manufacturing Co. will not knit hosiery; has lumber plant. (Lately noted inceptd.)

N. C., Shelby.—Hosiery.—Lihomac Hosiery Mill organized; Geo. A. Hoyle, Pres.; J. R. McClure, V.-P.; L. E. Ligon, Secy.-Treas.; has building; 21 knitting machines with

electric-power drive; cost of mill machinery \$5000; daily capacity 100 dozen pairs. (Hoyle, McClure & Ligon lately noted to establish mill.)

Tenn., Murfreesboro.—Hosiery.—Sunshine Hosiery Mill, Chattanooga, Tenn., plans to establish branch knitting mill.

Tenn., Nolita.—Cotton Yarn.—Nolita Development Association, H. T. Burn, Secy., plans to secure establishment of cotton spinning mill. (See Machinery Wanted—Cotton Machinery.)

Tex., Hillsboro.—Cotton Yarn.—Hillsboro Cotton Mills, A. L. Smith, Pres., advise Manufacturers Record regarding plant addition: Robert & Co., Engrs. Archts., Atlanta, Ga.; 126x114, 60x56, 57x38 and 60x30-ft. buildings; brick construction; cost \$35,000; 6200 spindles; 165 looms; electric power drive, 450 H. P., cost \$10,000; purchased machinery; daily capacity 7500 lbs. cotton yarn. (Noted in February to double capacity and letting contract for additional buildings to D. M. Stowe.)

WATER-WORKS

Ga., Jeffersonville.—City voted \$15,000 bonds to build water-works and \$9000 to build electric-light plant. Address The Mayor.

Md., Myersville.—City plans to establish water-works and electric-light plant. Address The Mayor.

Mo., Springfield.—City Comms. contemplate ordering vote on \$50,000 bonds to construct water-works and septic plant.

Okla., Blackwell.—City voted \$77,500 bonds to extend water-works. Address The Mayor. (Lately noted to vote.)

WOODWORKING PLANTS

Ark., Bradley.—Staves.—Warren Stave Co. increased capital from \$50,000 to \$75,000.

Ky., Benton.—Hubs.—Lents Spring Hub Co. increased capital from \$2000 to \$4000.

Miss., Vicksburg.—Gum Veneer.—Acme Veneer Co. purchased lumber plant; will improve and equip to manufacture gum veneer; J. R. Holcomb, Mgr.

Mo., St. Louis.—Boxes, etc.—Marvin Planing Mill Co. will rebuild plant reported burned at \$300,000 loss.

N. C., Charlotte.—Furniture.—O. K. Furniture Co., capital \$10,000, inceptd. by Alfred M. Akin, Geo. T. Lee and others.

N. C., Bryson City.—Wood Novelties.—American Novelty Co., capital \$25,000, inceptd. by R. G. Coffey and J. L. McClure of Bryson City, and W. W. Jenkins of Solola, N. C.

S. C., Columbia.—Novelties.—Carolina Woodshop, capital \$5000, inceptd. by J. C. Byrd and Hal M. Pratt.

Va., Bassett.—Furniture.—Bassett Furniture Co. increased capital from \$300,000 to \$500,000.

FIRE DAMAGE

Ark., Harrisburg.—Mrs. S. N. Gray's residence; loss \$5000.

Ark., Little Rock.—W. G. Streett's residence; loss \$3500.

Ark., Little Rock.—Second Baptist Church; loss \$75,000. Rev. Calvin Waller, Pastor.

Ark., Parkdale.—R. G. Williams' barn; estimated loss \$10,000.

D. C., Washington.—Residence of Chauncy P. Carter, 4905 Conduit Road N. W.; loss \$10,000.

Fla., Southport.—Mrs. E. L. Woods' residence and other dwellings.

Ga., Athens.—Mule and feed barn of State Normal School farm, 3 mi. from Athens; loss \$3000 to \$4000.

Ga., Atlanta.—Stable buildings of Nichol's Dairy Farm.

Ky., Bowling Green.—Albert Covington's residence 2 mi. from Bowling Green; loss \$4500 to \$5000.

La., Gretna.—James Johnson's residence on Jefferson St., owned by Mrs. O. V. Wagner; loss \$2800.

La., Sulphur.—W. J. Mowad's store; G. M. Mahaffey's store; Johnson's restaurant; Lon Andrus' building; Perkins Drug Co.'s store; Broussard's Barber Shop; Khouty Company's store; U. R. Gassen's store; H. and Frank Vincent's pool hall; Lyons' pool hall; Chas. Etie's market; Oscar Le Blanc's store; Wm. Curd's store; W. James' garage; Mr. La Blanc's residence; Toune's barber shop; Calcasieu National Bank building; loss \$100,000.

Md., Baltimore.—Rues Brothers' machine and automobile repair shop at 150 Mount Royal Ave.; loss \$5000.

Md., Baltimore.—P. Kennedy Foundry Co.'s plant at Charles and Wells Sts.; loss \$200,000.

Md., Foxville, R. D. from Lantz.—Stone Lutheran Church. Address The Pastor.

Md., Highfield.—Cottage of Alexander Armstrong, Jr., of Hagerstown, Md.; loss \$5000.

Md., Williamsport.—Benjamin C. Lefever's residence; loss \$5000.

Miss., Byhalia.—G. B. Langston's stock barn.

Miss., Columbia.—Columbia Central School building; estimated loss \$40,000. Address School Board.

Miss., Meridian.—J. E. May's residence.

Mo., St. Louis.—Marvin Planing Mill Co.'s mill; loss \$300,000.

N. C., Albemarle.—Finch Morgan's dwelling.

N. C., Asheville.—Arden Park lodge, hotel and 2 adjoining cottages, owned by Mrs. C. W. Beall, Arden, N. C.

N. C., Big Lick.—W. A. Cagle's store; building of D. E. Efrid, Albemarle, N. C.

N. C., Wilmington.—Buck Armstrong's barn near Wilmington.

N. C., Winston-Salem.—West End School; loss several thousand dollars. Address School Trustees.

S. C., Bennettsville.—Marlboro Hotel.

Tenn., Memphis.—J. Rose Warehouse Co.'s warehouse; estimated loss \$225,000.

Tenn., Carthage.—T. E. Boren's dwelling in West Carthage; loss \$10,000.

Tex., Center.—H. B. Short's residence.

Tex., Dallas.—Alex. Camp's residence, 2734 Edgefield Ave.; loss \$10,000.

Tex., Dallas.—Building occupied by American Red Cross, Barnhart Bros. & Spindler, R. C. Dyer, Mgr., and Rubberoid Roller Co.

Tex., Howe.—J. A. Hughes Grain Co.'s hay warehouse; loss \$4000; G. B. R. Smith Milling Co.'s warehouses, offices, grain elevator and engine-room; loss \$15,000.

Tex., Marble Falls.—Robert Fuchs' dwelling; loss \$2000.

Tex., Waco.—Clement Grain Co.'s elevator; loss \$40,000.

Tex., Waco.—Big Four Ice Co.'s buildings, occupied by Waco Drug Co.; loss \$15,000.

W. Va., Beckley.—Main building on Beckley Institute property, occupied as district high school; loss on building \$27,000. Address Board of Education.

W. Va., Camden.—Methodist Episcopal Church; loss \$4000. Address The Pastor.

W. Va., Charleston.—Morgan Lumber Manufacturing Co.'s 2 drykilns; loss \$25,000.

W. Va., Charleston.—Yellow Pine Lumber Co.'s plant and lumber; loss \$10,000 to \$12,000.

W. Va., Oak Hill.—F. H. Johnson's cleaning and dye works; building was owned by J. E. and J. S. Lewis.

DAMAGED BY STORM

Tenn., Newbern.—Rice R. Rose's dwelling.

and comfort station building in Carondelet Park; concrete; stucco finish; Spanish tile roof; 102x30 ft.; cost \$28,000.

Tenn., Johnson City.—Market-house, etc.—W. O. Dyer, City Mgr., receives bids until April 30 to construct court and market-house, school building and annex to 2 other schools; plans and specifications from C. G. Mitchell or D. R. Beeson, Archts., Johnson City. (See Courthouses.)

COURTHOUSES

S. C., Lexington.—County Commrs. have plans by Geo. E. Lafaye, Lexington for remodeling and enlarging courthouse lately noted; 2 stories; brick; tin roof; wood floors; open fireplaces; electric lights; cost \$20,000; construction by convict labor under C. E. Corley, Lexington. (See Machinery Wanted—Fire Shutters; Vault Materials.)

Tenn., Johnson City.—W. O. Dyer, City Mgr., receives bids until April 30 to construct courthouse and market-house, new school building and annex to two other schools; plans and specifications from C. G. Mitchell or D. R. Beeson, Archts., Johnson City; will issue \$75,000 courthouse and \$50,000 school bonds.

DWELLINGS

Ark., Little Rock.—H. K. Roberts will erect 1-story frame cottage; cost \$3000.

Ark., Little Rock.—R. R. Sawyer will erect two 1-story bungalows; cost \$4000.

D. C., Washington.—John L. Knopp, 1929 Jackson St. N. E., has plans by C. F. Reed, Hyattsville, Md., for bungalows at 3302-04 Twentieth St. N. E.; 25x37 ft.; 1½ stories; frame; composition roof; edge grain pine and oak floors; electric lights; hot-water heat to cost \$400; sidewalk, \$125; day labor under supervision of owner, who will purchase all materials. (Lately noted.)

Fla., Daytona Beach.—C. A. Grinnell is having plans prepared by S. H. Gove, Daytona, for residence.

Fla., Daytona Beach.—Mrs. J. Ralph Wilcox will erect 2-story residence; 6 rooms; garage; construction under supervision of C. C. Gillett.

Fla., Miami.—L. T. Highleyman will erect residence at Point View.

Fla., New Smyrna.—F. A. Tickenor, Niles, Mich., is reported to erect winter residence.

Fla., St. Petersburg.—Thomas Hays, Cleveland, O., will erect bungalow.

Fla., St. Petersburg.—John McMyler has plans by Edgar Ferdon, St. Petersburg, for residence; 30x60 ft.; brick veneer; shingle roof; oak floors; electric lights; cost \$12,000; day labor. (Lately noted to have let contract to Bryan & Snyder for brick work.)

Fla., St. Petersburg.—R. B. Worthington has plans by Wm. Siegel Shull, St. Petersburg, for residence and garage; 125x35 ft. and 27x37 ft., respectively; hollow tile; slate roof; wood and concrete floors; hot-water heat; construction by owner. Address architect. (Lately noted.)

Fla., Tarpon Springs.—C. W. Bloom, New Paris, Ohio, will erect winter residence.

Fla., West Palm Beach.—Chas. B. Dillingham will erect dwelling.

Fla., West Palm Beach.—A. Jose will erect residence.

Fla., West Palm Beach.—Franklin S. Clark, Fayetteville, N. C., will erect dwelling.

Fla., West Palm Beach.—G. A. Thomas, Minneapolis, Minn., will erect residence.

Fla., West Palm Beach.—Paris Singer will erect villa.

Ga., Atlanta.—J. F. Evans will erect 2-story brick dwelling 17 St. Charles St.; cost \$7500.

Ga., Atlanta.—M. G. Norris will erect brick-veneer dwellings on 13 lots on Virginia and Maryland Aves.

Ga., Atlanta.—A. H. Bailey will erect dwellings at 263 and 316 N. Moreland Ave.; brick; 7 rooms; cost \$11,000.

Ga., Atlanta.—E. D. S. Thompson will erect residence; brick; cost \$5500.

Ga., Atlanta.—Wm. K. Jenkins will erect 2-story brick residence.

Ga., Atlanta.—C. H. Milliner will erect brick-veneer bungalow; 7 rooms; cost \$5000.

Ga., Atlanta.—W. N. Cochran will erect residence on Springdale Road.

Ga., Atlanta.—H. W. Nicholes & Son have permit to erect dwellings at 67, 75, 73 and 28 Springdale Rd.; brick veneer; tile roof; cost \$64,000; two latter dwellings for E. B. Stewart; also have permit to erect dwellings at 485 and 467 Greenwood Ave. and 236 Forrest Ave.; 2 stories; brick veneer; cost \$15,000.

Ga., Thomasville.—Mrs. H. C. Wolter, Highland Park, Ill., is reported to erect winter residence.

La., New Orleans.—Chas. S. Gerth is reported to erect dwelling.

Md., Baltimore.—Frank O. Singer, Jr., 600 Equitable Bldg., is having plans prepared by Jacob F. Gerwig, 1028 N. Fulton Ave., Baltimore, for three 3-story dwellings on southern side Lake Drive, near Brookfield Ave., and five 2-story dwellings at Calvert and 32d St.; former 24x42 ft.; latter 23x36 feet.

Md., Baltimore.—Northwestern Real Estate Co. will erect residence on Ashburton St., near Garrison Ave.; 1½ stories; frame; 26x26.6 ft.; cost \$4000; Geo. R. Morris, Archt., 533 Title Bldg., Baltimore.

Miss., Corinth.—W. Phelps will erect residence; brick; 7 rooms; cost \$5000.

Mo., Kansas City.—A. O. Thompson will erect colonial residence; cost \$20,000.

Mo., Kansas City.—G. B. Jennings will erect 2-story frame dwelling and garage; cost \$4000.

Mo., St. Louis.—Girard Realty & Building Co. will erect 5 dwellings in Hayden's Boulevard Heights; 6 rooms; hardwood floors; built-in bookcases; colonades; electric lights; tile baths; granitoid cellar; sun porches, etc.

Mo., St. Louis.—Chas. Wilcox will erect residence; 2 stories; cost \$4000.

Mo., St. Louis.—Geo. Prothero will erect addition to residence; cost \$3800.

Mo., St. Louis.—J. W. Rolf will erect 2-story residence; cost \$4000.

Mo., St. Louis.—M. Reinhardt will erect 2-story dwelling; cost \$9000; construction by owner.

Mo., St. Louis.—Anna Powers will alter dwelling; cost \$5000; construction by owner.

N. C., Greensboro.—C. W. Edwards is reported to erect residence.

N. C., Greensboro.—J. M. Galloway, Madison, N. C., has plans by Harry Barton, Greensboro, for residence; stone; probably tile roof; cost about \$25,000. Address Archt. (Lately noted.)

Okla., Tulsa.—J. E. Dallous, Box 1362, Tulsa, has plans by J. W. Robb, S. Boston Ave., Tulsa, for residence; 35x46 ft.; frame; wood shingle roof; wood floors; no heating or lighting plants; cost \$4000; sidewalks about \$200; construction by day labor with J. W. Aubrey, Supt., Tulsa. (Lately noted.)

Okla., Tulsa.—A. Mizell will erect residence; cost \$3000.

Okla., Tulsa.—M. F. McBride will erect \$5000 residence.

Okla., Tulsa.—Goldie Ravitz will erect \$3500 residence.

Okla., Tulsa.—Olaf Skedmo will erect residence; cost \$3000.

Okla., Tulsa.—W. T. Rudd will erect residence; cost \$2500.

Okla., Tulsa.—W. G. McGeehie will erect \$2400 residence.

Okla., Tulsa.—A. W. Hine will erect residence; cost \$3500.

Okla., Tulsa.—C. V. Baker will erect \$3000 residence.

Okla., Tulsa.—C. W. Klugsbury will erect residence; cost \$3000.

Okla., Tulsa.—F. L. Townsend will erect \$4500 residence.

Okla., Tulsa.—Frank Glazer will build \$2000 residence.

Okla., Tulsa.—Fritz Chastain will build \$5500 residence.

Okla., Tulsa.—H. W. Johnson will build \$4000 residence.

Okla., Tulsa.—W. N. Hudson will erect \$3000 residence.

Okla., Tulsa.—L. A. Easter will erect \$2500 residence.

Okla., Tulsa.—J. W. Montgomery will erect \$3000 residence.

Okla., Tulsa.—Jenkins & Terwilliger will erect \$5000 residence.

Okla., Tulsa.—C. Setterstrom will build \$3000 residence.

Okla., Tulsa.—O. L. Chancellor will erect 2 residences; cost \$4000 each.

Okla., Tulsa.—E. P. Boone, Box 1364, Tulsa, has plans by C. L. Butler, 421 First National Bank Bldg., Tulsa, for lately noted residence at 1633 S. Madison Blvd.; 39x46 ft.; brick veneer and wood; shingle roof; hardwood and tile flooring; hot-air heat; cement sidewalks; cost \$6000; architect will superintend construction. Address owner. (See Machinery Wanted—Brick; Lumber; Flooring; Electric Fixtures; Plumbing.)

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

D. C., Washington.—Joseph Schuffman will remodel apartment-house 3145 Mt. Pleasant St.; cost \$3000.

Ga., Atlanta.—Mrs. Mamie Duffy will erect apartment-house; cost \$18,000.

Mo., Kennett.—O. S. Harrison will remodel building for apartment-house; 4 suites; hot and cold running water, etc.

Mo., St. Louis.—Trade Realty & Building Co. will erect tenement-house at 4271 Washington St.; 4 stories; cost \$50,000.

Tex., Dallas.—Otto Lang will erect building; first floor for undertaking establishment; upper for apartments. (See Miscellaneous Structures.)

Va., Richmond.—W. J. Gilman has plans by Asbury & Whitehurst, Richmond, for apartment-house on W. Grace St.; 60x44 ft.; brick; slate and slag roof; wood joist floor construction; hot-water heat; cost \$26,000; construction by owner. (Lately noted.)

Va., Richmond.—Davis Bros., Inc., will erect two 3-story brick apartment-houses on Monument Ave. between Boulevard and Sheppard St.; 35x89 ft.; 6 suites; cost \$50,000.

W. Va., Huntington.—A. B. Hockenberry will erect brick store and flat; cost \$3000. (See Stores.)

ASSOCIATION AND FRATERNAL

La., Monroe.—Woodmen of the World will probably erect building; 3 stories; brick; cost \$20,000 to \$35,000.

BANK AND OFFICE

D. C., Washington.—P. J. Hurley and G. N. Wright have plans by C. L. Harding, 729 15th St., Washington, to erect building for offices and stores at 18th, H and Pennsylvania Aves.; 80x100 ft.; reinforced concrete frame and floors; concrete, felt and slag-finish roof; limestone; 3 stories; buff brick enclosing walls and terra-cotta; cost \$100,000; American bar lock sidewalk, \$500; Otis traction elevator, \$10,000; owners are sub-letting contracts. Address architect. (Lately noted.)

Tenn., Memphis.—Memphis-Wyoming Stockyards Co. will be organized by W. R. McBride and others; will let contract to erect offices, barns, etc. (See Miscellaneous Structures.)

Tex., Fort Worth.—Wm. McDonald will erect 2-story brick office building; cost \$2400.

Tex., Huntsville.—E. T. Josey will erect brick office building.

Tex., San Antonio.—San Antonio Drug Co. will erect 5 or 6-story building; offices on first floor. (See Stores.)

Tex., San Antonio.—Guaranty State Bank will expend \$12,000 to alter and improve bank building; will install vault, etc.

CHURCHES

Ala., Harford.—Methodist Church has plans by C. W. Carlton, Chattanooga, Tenn., for building; brick or brick veneer; concrete floor in basement; concrete sidewalk; bids opened in two weeks; cost \$15,000. Address L. C. Holman. (Lately noted.)

Ark., Little Rock.—Second Baptist Church will probably rebuild structure noted damaged by fire at loss of \$75,000; Rev. Calvin Waller, pastor.

La., Edgard.—St. John the Baptist Church will erect building to replace structure lately noted damaged by fire; 120x25 ft.; brick. Address C. Granzard, Chrmn. Building Com.

Okla., Chickasha.—First Baptist Church, Rev. D. D. Jones, Pastor, will rebuild structure previously noted damaged by fire; date opening bids, and details not determined.

S. C., Andrews.—Episcopal Church will erect \$5000 building. Address The Pastor.

S. C., Dillon.—Baptist Church will remodel building and erect Sunday-school addition; cost \$5000 to \$10,000. Address The Pastor.

S. C., Lexington.—St. Stephens Southern Church will erect parsonage; cost about \$5000. Address The Pastor.

Tenn., Nashville.—Eighth Street Baptist Church will erect brick building; cost \$5000. Address The Pastor. (Previously noted.)

Tex., Huntsville.—Methodist Church, Rev. R. W. Adams, pastor, will erect building to replace structure lately noted damaged by fire; fireproof; cost \$50,000.

Tex., Woods.—Baptist Church, J. W. Hooker, Chrmn. Building Com., Tenaha, Tex., receives bids to erect \$3000 frame building; plans and specifications on application.

Va., Richmond.—Baptist Council of Richmond and Manchester will erect frame church building; cost \$3000.

CITY AND COUNTY

Ark., Marianna.—Jall.—J. A. Plumber, Lee County Judge, opens bids April 24 for addition and remodeling county jail; plans and specifications at J. C. Plumber; J. C. Jones, Archt., Forrest City, Ark. (Previously noted to have rejected bids and having new plans drawn.)

Fla., St. Augustine.—Comfort Station.—City will erect addition to comfort station in Plaza Annex. Address The Mayor.

Mo., St. Louis.—Band Stand, etc.—Park Commrs. will erect band stand, boathouse

S. C., Lexington.—E. G. Dieher has plans by Geo. E. Lafaye, Lexington, for residence; brick.

Tex., Fort Worth.—Miss Annie Shelton will erect two 1-story frame residences; cost \$4400.

Tex., Fort Worth.—Mrs. H. O. Ledgerwood will erect 1-story frame residence; cost \$2700.

Tex., Fort Worth.—M. C. Randle will erect 1-story frame residence; cost \$2700.

Tex., Fort Worth.—L. L. Burton will erect 2-story brick residence; cost \$18,000.

Tex., Houston.—Jos. Hellen, 232 Marshall Ave., has plans by C. N. Nelson, 1210 W. Main St., Houston, for repairs to residence; 10 rooms; frame; Genasco asphalt shingle roof; oak floors; cost \$4300; heating, \$600. (Previously noted damaged by fire.)

Tex., San Antonio.—J. C. Harris will erect two 5-room residences; cost \$3500.

Tex., San Antonio.—L. A. Casey will erect two 6-room residences lately noted; frame and brick; oak floors; cost \$3500; plans and construction by owner. (See Machinery Wanted—Electrical Fixtures.)

Tex., San Antonio.—Mrs. E. F. Bailey will erect 6-room dwelling; cost \$4000.

Tex., San Antonio.—F. H. Yeagley will erect two 5-room dwellings; cost \$3600.

Tex., San Antonio.—Mrs. S. Barchus will erect 5-room dwelling; cost \$2200.

Tex., San Antonio.—Miss M. O. Gorman will erect 6-room dwelling; cost \$3000.

Va., Richmond.—C. W. Page will erect frame dwelling; cost \$5000.

Va., Richmond.—Joseph Baker has plans by Asbury & Whitehurst, Richmond, for residence in Ginter Park; brick; 25x69 ft.; brick; slate roof; wood joist floors; hot-water heat; cost \$7000.

Va., Richmond.—Dr. Geo. C. Hall has plans by Asbury & Whitehurst, Richmond, for residence in Westhampton; 40x30.9 ft.; frame and stucco; slate roof; hot-water heat; cost \$12,000; construction by owner.

Va., Richmond.—W. F. Drinkard, 2001 Hanover Ave., will erect residence at 1420 Fourth Ave.; 26x32 ft.; brick; tin roof; rift pine floors cost \$3250; heating, \$375; city lighting; plans and construction by owner. (Lately noted.)

W. Va., Huntington.—Charles Fletcher will erect frame residence; cost \$2500.

W. Va., Huntington.—Southern Improvement & Realty Co. will erect stucco residence; cost \$4200.

W. Va., Huntington.—Huntington Home Building Co. will erect 2-story brick residences; also brick and stucco residence; cost \$3500 each.

W. Va., Huntington.—Southern Improvement & Realty Co. has plans by Richard M. Bates, Portsmouth, O., for 2 residences; 32x30 ft. and 27x32 ft.; stucco; asphalt-shingle roof; oak floors; hot-air heat; electric lights; cost \$4500 and \$4250; day labor.

GOVERNMENT AND STATE

N. C., Charlotte.—Remount Station.—War Dept., Washington, D. C., will enlarge remount station at Camp Greene; build corals and stables; Major Clarence H. Greene, Constructing Quartermaster, Camp Greene.

HOSPITALS, SANITARiums, ETC.

Ga., Augusta.—City will erect and equip clinic building on lot of medical college; cost \$125,000; also erect tuberculosis hospital near city; cost \$75,000. Address The Mayor.

Md., Baltimore.—War Dept., Washington, D. C., will erect 25 additional hospital buildings at Fort McHenry; tile construction; Capt. Hockman, Constructing Quartermaster.

Tenn., Nashville.—Du Pont Engineering Co. will erect temporary hospital; frame; 80x40 ft.; 2 wards of 12 beds, dispensary, etc.; will later erect permanent structure previously noted.

W. Va., Morgantown.—Monongalia County Comms. will have plans for infirmary ready for bids about May 15; Elmer F. Jacobs, Archt., P. O. Box 376, Morgantown. (Previously noted.)

Tex., Waco.—Methodist Orphanage Hospital receives bids at office Central Texas Exchange National Bank, Waco, until April 5 to erect 1-story fireproof duplex structure; brick; tile and concrete; 100x28 ft.; 16 beds, operating-room, sterilization compartment and sun gallery at each end; cost \$15,000; separate bids on mechanical equipment; H. O. Blanding, Archt., Corsicana, Tex.; plans at office Ed. McCullough, Waco. (Lately noted.)

HOTELS

Fla., Fort Lauderdale.—G. E. Henry has plans by August Geiger, Miami, Fla., for hotel and store building; 4 stories; 125x127 ft.; concrete and hollow tile; class A roofing; tile and wood floors; heating not decided; city lighting; cost \$125,000; Otis elevator, about \$5000; bids opened April 4. (Previously noted.)

Ga., Atlanta.—Frank G. Corker, Dublin, Ga., is reported to erect 14-story addition to Cecil Hotel; plans include restaurant, etc.

La., Monroe.—J. E. Doughtle will erect 60-room addition to Hotel Monroe; 3 or 4 stories; private baths; automatic sprinkler; also remodel present structure by installing elevator, enlarging lobby and dining-room, dance and banquet hall; cost \$75,000.

S. C., Bennettsville.—Marlboro Hotel will probably erect hotel to replace structure noted damaged by fire.

S. C., Charleston.—Argyle Hotel has plans by J. D. Newcomer, Charleston, for addition to hotel; 180x43 ft.; 4 stories; brick; tin roof; steam heat; electric lights; passenger elevator; cost \$65,000 to \$70,000; will call for bids in about 2 weeks.

Tex., Beaumont.—Chamber of Commerce is promoting organization of company with \$150,000 capital to build hotel of 200 rooms.

Va., Alexandria.—National Capital Hotel Corporation increased capital from \$500,000 to \$3,000,000.

MISCELLANEOUS

Ala., Selma.—Barn.—Chas. J. and Ed. K. Marshall will erect barn for horses, mules and cattle; 90x120 ft.; brick, tin and composition roof; plank floors; construction by owner. (See Machinery Wanted—Skylight Ventilators; Sidings.)

Ark., Little Rock.—Home.—Arkansas Children's Home Society, 2428 Louisiana St., will remodel J. L. Parkin residence, 3210 W. Twelfth St., for E. S. Hilliard Receiving Home; will convert 300-ft. porch into dormitory to accommodate 30 boys. (Lately noted.)

Fla., Daytona.—Restaurant.—C. E. Luther plans to erect restaurant building; concrete construction.

Mo., St. Louis.—Platform.—Anheuser-Busch Co. will erect concrete loading platform; cost \$40,000.

Tenn., Memphis.—Barns, etc.—Memphis-Wyoming Stockyards Co. will be organized by W. R. McBride, W. A. Haggott of Denver, Col., and others; will let contracts at once to erect pens, offices, feed barns, scales, etc., in connection with stockyards; initial unit to cost \$75,000.

Tex., Dallas.—Undertaking Establishment.—Otto Lang will erect building to be occupied by Chas. F. Welland Undertaking Co.; 50x125 ft.; 2 stories; first floor for undertaking establishment; upper, for apartments; cost \$30,000.

Tex., Goodnight.—Home.—Buckner Orphans' Home, Dallas, will remodel old Goodnight College building for annex.

RAILWAY STATIONS, SHEDS, ETC.

Fla., Miami.—Florida East Coast Ry. Co., E. Ben Carter, Chief Engr., St. Augustine, Fla., will erect freight station; 40x300 ft.; concrete; slate roof; concrete floors; electric lights; plans by company's architect and construction probably by company force. (Lately noted.)

Okla., Tulsa.—Atchison, Topeka & Santa Fe Railway, H. W. Wagner, Chief Engr., Topeka, Kan., plans to expend \$2,000,000 for terminal improvements, including erecting passenger station, etc. Mr. Wagner wires Manufacturers Record: "Plans not complete."

Tex., Needville.—Southern Pacific Ry., W. Hood, Ch. Engr., San Francisco, Cal., will erect depot.

SCHOOLS

Ala., Bay Minette.—Foley School Dist. No. 60, Durant Chapel School Dist. No. 82 and High Pine School Dist. No. 32 vote April 22 on tax to erect and equip school buildings. Address County Board of Education, Bay Minette.

Ala., Birmingham.—Board of Commissioners, Dr. N. A. Barrett, Prest., will erect cantonment for temporary high school, pending erection of Central High School to replace structure previously noted damaged by fire; provide gymnasium, lunch room, music rooms, laboratories, etc.; cost \$25,000.

Ala., Boyles.—Jefferson County Board of Education adopted plans by D. O. Whilldin, Birmingham, for high school to replace

burned structure; 2 stories; colonial style; Georgian type; 1-story wing on either side, running back about 60 ft. from frontage of 176 ft.; 2-story auditorium to seat 500; 20-ft. stage; manual training and machinery departments; gymnasium; laboratories; cost \$55,000. (Lately noted.)

Ala., Foley.—Foley School Dist. No. 60 votes April 22 on tax to erect and equip school building. (See Ala., Bay Minette.)

Ala., Fort Payne.—DeKalb County voted tax to erect school building. Address County School Trustees.

Ark., Hamlin.—Board of Directors, School District No. 13, receives bids until April 30 to erect 2-story frame school building; plans and specifications at office A. S. Jeffers, Secy. Board of Directors, Hamlin, and Clyde A. Ferrell, Archt., Little Rock.

Ark., Harrisburg.—City School Board will erect school building.

Fla., Palatka.—Palatka School Dist. voted \$5,000 school-building bonds. Address Chrmn. County Bd. of Public Instruction.

Fla., Vero.—Special Tax School Dist. No. 11 voted \$25,000 bonds to erect school. Address Board of Education of St. Lucie County, Fort Pierce, Fla. (Previously noted.)

Ga., Adel.—City has plans by Little & Phillips, Cordele, Ga., for school building; 80x50 ft.; brick; metal roof; rift flooring; city electric lights. Address S. J. Harwell, Mayor. (Lately noted.)

Ga., Atlanta.—City will expend \$8000 to repair boulevard grammar school previously noted damaged by fire. Asa G. Candler, Mayor. (Lately noted.)

Ga., Rochelle.—City is considering erecting public school. Address The Mayor.

La., New Orleans.—Delgado Central Trades School is having plans prepared by E. A. Christy, City Archt., for building; J. A. Pratt, Philadelphia, will supervise construction.

Miss., Clarksdale.—School Board has plans by R. H. Hunt, James Bldg., Chattanooga, Tenn., for school; brick; vacuum heat; electric lights; cost \$85,000; date opening bids not decided. Address architect. (Previously noted.)

Miss., McComb.—City, B. E. Butler, Clerk, will repair South McComb School; bids opened April 2. (Lately noted to open March 19.)

Miss., Moselle.—Board of Supervisors will erect school building; bids opened April 1; plans and specifications at office Chancery Clerk, Ellisville, Miss.; 2 stories; 50x70 ft.; brick; yellow-pine floors; cost \$8000; N. W. Overstreet, Archt., Jackson, Miss.

Miss., Strayhorn.—Strayhorn Consolidated School Dist. plans to issue \$20,000 school-building bonds; J. A. Wooten, Clerk Bd. of Supervisors of Tate County, Senatobia, Miss.

N. C., Dallas.—Dallas School District is considering erection of school building; E. L. Houser, J. W. Summey and J. F. Puett, Com.

N. C., Durham.—State Normal and Industrial College, J. I. Foust, Prest., opened bids to erect fireproof dormitory and two wings to Melver Bldg.; J. T. Salmons, Durham, low bidder; B. McKenzie, Greensboro, N. C., low bidder for heating equipment; cost about \$200,000. (Lately noted.)

Okla., Bristow.—City will vote on bonds to erect school; 40x160 ft.; 9 rooms, assembly hall and gymnasium. Address The Mayor.

Okla., Nowata.—School Board of District No. 55 will receive new bids to erect school building; C. A. Henderson, Archt., Coffeyville, Kan.; J. R. Blasingame, Clerk. (Previously noted.)

S. C., McClellandsville.—County Board of Education will begin about May 1 erection of school; brick; auditorium and 6 classrooms, 24x32 ft. each; cost \$12,000.

S. C., Rock Hill.—Board of Trustees, Winthrop Normal & Industrial College, receives plans until April 6 for dormitory building and students' building; D. B. Johnson, Prest. and Chrmn. of Building Co. (Previously noted.)

Tenn., Johnson City.—W. O. Dyer, City Mgr., receives bids until April 30 to construct school building and annex to 2 other schools; plans and specifications from C. G. Mitchell or D. R. Beeson, Archts., Johnson City; will issue \$50,000 bonds. (See Court-houses.)

Tex., Beaumont.—South Park Independent School, W. C. Holland, Director of Shops, contemplates erection of vocational school; lately noted. (See Machinery Wanted—Tools.)

Tex., Beaumont.—Bids received by J. G. Sutton, City Secy., until Apr. 2 for general

construction, heating, plumbing and wiring for alterations and additions to Fletcher School; also, until same date, for general construction, heating, plumbing and wiring for 2 units for Magnolia School; plans and specifications at office Mr. Sutton, Beaumont, and Sanguinet, Staats & Gottlieb, Archts., Fort Worth and Houston, Tex. (Lately noted.)

Tex., Fort Worth.—City Board of Education, M. H. Moore, Supt., will soon let contract to erect North Side High School; cost \$125,000; also having plans prepared for \$25,000 addition to Van Zandt school. (See Schools—Contracts Awarded.)

Tex., Italy.—City has plans by T. J. and J. O. Galbraith, Dallas, for school; 2 stories; brick; composition roof; concrete and wood floors; stoves; bids opened. (Lately noted.)

Va., Bristol.—Virginia Intermont College will erect addition to building.

Va., Fredericksburg.—Legislature authorized city to issue school-building bonds. Address The Mayor.

Va., Newport News.—Legislature authorized School Board of Newport News Magisterial District, Warwick County, to borrow \$50,000 school-construction bonds.

Va., Portsmouth.—City plans to issue \$150,000 bonds for school. Address The Mayor.

W. Va., Beckley.—Board of Education will probably rebuild District High School on Beckley Institute property, reported damaged by fire at loss of \$27,000.

W. Va., Triadelphia.—Triadelphia School Dist. is considering issuing school-building bonds. Address District School Trustees.

STORES

Ark., Conway.—F. U. Halter will erect business building; fireproof; 2 stories; steam heat.

D. C., Washington.—P. J. Hurley and G. N. Wright have plans by C. L. Harding, 729 Fifteenth St., Washington, for store and office building; 80x100 ft.; reinforced concrete; limestone, brick and terra cotta; cost \$400,000; owners will sub-let contracts. Address contractor. (See Bank and Office.)

Fla., Fort Lauderdale.—G. E. Henry opens bids April 4 to erect store and hotel building; 4 stories; 125x127 ft.; concrete and hollow tile; tile and wood floors; city lighting; Otis elevators; cost \$125,000. (See Hotels.)

Fla., Daytona.—Roberts Brothers will erect 4-story store building.

Mo., Kansas City.—Henry J. Ernst will erect 1-story brick and stone building; cost \$20,000.

Mo., St. Louis.—A. B. Erker will erect store building; 1 story; cost \$35,000.

Tenn., Maryville.—Will Caldwell and Roll McCammon will let it be reported, erect business building on Main St.

Tex., Cleburne.—S. B. Norwood will erect \$20,000 brick store building.

Tex., Penelope.—E. Homer, West, Tex., and J. M. Norris, Penelope, will erect store building to replace burned structure; brick; composition roof; other details not determined.

Tex., San Antonio.—A. B. Frank Co. is reported to erect 4-story addition.

Tex., San Antonio.—San Antonio Drug Co. will erect business building; 5 or 6 stories; reinforced concrete; elevator; 118x150 ft.; laboratory on top floor; lower floor, offices; sprinkle system; cost \$200,000.

Va., Richmond.—Chas. H. Kahl will erect brick store building; cost \$2000.

W. Va., Cass.—Pocahontas Supply Co. will erect temporary store building to replace structure lately noted damaged by fire; later will erect permanent structure.

W. Va., Huntington.—A. B. Hockenberry will erect brick store and flat; cost \$3000.

THEATERS

Ga., Atlanta.—Marcus Loew, New York, will expend \$40,000 for improvements to Grand Theater instead of erecting new structure as previously noted; plans include remodeling gallery, erection of mezzanine floor, stage, marquee, installation of \$15,000 pipe organ, typhoon fan system, electrical equipment, scenery and hangings; E. A. Schiller, local manager.

Miss., Clarksdale.—King & Anderson will remodel Majestic Theater.

Okla., Picher.—R. C. Berry will build airdome theater; seating capacity 1700.

S. C., Columbia.—Lawrence T. Lester will erect moving-picture theater; 2 stories; seating capacity 1000.

Tenn., Chattanooga.—F. H. Dowler, care of Signal Amusement Co., has plans by R.

H. Hunt, James Bldg., Chattanooga, for vaudeville theater; 90x136 ft.; brick and frame; bids opened April 1. Address architect. (Lately noted.)

Tex., Orange.—Airdome Theater, H. Thomas, Mgr., will soon let contract to erect theater; 45x145 ft.; interlocking tile; stucco finish; seating capacity, 1200; cost \$35,000.

WAREHOUSES

*Md., Baltimore.—G. H. Boehm has plans by R. C. Mason, Jr., 3016 Edmondson Ave.,

Baltimore, for 1-story brick storage building at 623 N. Charles St.

Md., Baltimore.—Mount Vernon-Woodberry Mills, Inc., will erect 4-story concrete warehouse at Woodberry; cost \$50,000; Joseph Evans Sperry, Archt., 409 Calvert Bldg., Baltimore.

N. C., Rocky Mount.—New Farmers' Mutual Warehouse Co. will erect \$8000 addition to warehouse.

Va., Norfolk.—Jones Warehouse Corporation incptd. with \$250,000, with Walter H. Jones, Pres.; Arthur P. Jones, Secy.

BUILDING CONTRACTS AWARDED

ASSOCIATION AND FRATERNAL

Ga., Fort Oglethorpe.—American Red Cross Association, Washington, D. C., let contract to erect convalescent-house at Chickamauga Park; cost \$21,000.

BANK AND OFFICE

Ala., Bessemer.—Bessemer National Bank, J. F. Smith, Pres., let contract to J. L. Pike & Co. to remodel and erect addition to bank building.

Ky., Louisville.—Liberty Insurance Bank let contract to Alfred Struck Co., Louisville, to erect addition to and alter bank building; 50x150 ft.; joist construction; composition roof; joist floor construction; vapor heat; electric elevator; cost, including vault, \$209,000; Joseph & Joseph, Archts., Atherton Bldg., Louisville.

N. C., Charlotte.—John J. Morton Co., Charlotte, has contract at about \$40,000 for stone to erect bank building, for which C. T. Willis, Inc., 286 Fifth Ave., New York, is general contractor; Alfred C. Bosson, Archt., 306 Fifth Ave., New York. (Lately noted in detail.)

Okla., Ardmore.—First National Bank let contract to Hoggson Brothers, 485 Fifth Ave., New York, to erect bank building; 98x18 ft.; marble and limestone front; rear of brick and concrete; first floor, fireproof; 4 columns, 28 ft. high, of Indian limestone; marble floor and wainscoting in vestibule; lobby of marble separated from working quarters by counter screens of glass and marble; mezzanine floor 11x45 ft., with iron railing; banking-room 45x60 ft., with ceiling glass and plate-glass windows on all sides; cement floors; 4 vaults; boiler and stationery-rooms in basement; provide lockers and drinking fountain; direct heating system; construction under supervision of F. H. Thomas. (Previously noted.)

S. C., Anderson.—Sullivan Hardware Co. let contract to Builders' Lumber & Supply Co., Anderson, to remodel building adjoining present structure for offices; 25x75 ft.; cost \$2500; Casey & Fant, Archts., Anderson. Address contractor.

Tex., Orange.—Geo. E. Holland let contract to W. L. James, Orange and Port Arthur, Tex., to erect office and store building; 80x140 ft.; brick; composition Barrett specification roof; Ceramic tile and wood floors; steam heat; electric lights; cost \$53,000; Babin & Beck, Archts., Beaumont, Tex. (See Stores.)

Tex., Orange.—First National Bank has plans by C. H. Page & Bro., Austin, for improvements to building and let following contracts: General Contract, M. C. Bowden, Galveston; wiring, Orange Ice, Light & Water Co., Orange; plumbing, John L. Martin, Austin; bank fixtures, Art Metal Co., Dallas; heating, Dixie Heating & Ventilating Co., Houston; plans include new brick wall 2 stories, 89 ft. long; structure 80x50 ft.; either install new fixtures or extend present fixtures; concrete, marbleoid and tile floors; steam heating plant; new vault 15x18 ft., 18 ft. high, ceiling in same at 9 ft.; double vault for storage safety deposit boxes, etc.; lower floor banking quarters; upper floor offices. (Lately noted.)

CHURCHES

Miss., Clarksdale.—Baptist Church, Rev. Martin Ball, Pastor, let contract to Nicol & Co., Clarksdale, to erect building on First St.; red brick; stone trimmings; foundation 78x23 ft.; 8 classrooms; main auditorium 40; Sunday School to seat about 350; cost \$90,000.

Tex., Huntsville.—St. Stephen's Episcopal Church let contract to W. H. Randolph to rebuild structure.

CITY AND COUNTY

Ky., Louisville.—Comfort Stations.—City let contract to C. A. Koerner & Co., 318 E. Burnett St., Louisville, to erect comfort

station and handstand on Guthrie St., near Fourth, Lincoln Park; 29x41 ft.; concrete construction and roof; concrete and tile floors; vacuum steam heat from outside plant; city lighting; cost \$12,377; deferred erection of comfort station at 5th and Jefferson Sts. until after erection of Lincoln Park structure; Val P. Collins, Archt., 624 Paul Jones Bldg., Louisville. (Lately noted.)

DWELLINGS

Ala., Florence.—C. L. Haley, Jr., has plans by and let contract to J. L. Haltsford, Florence, to erect residence; 36x57 ft.; brick veneer; composition roof; hardwood and pine floors; electric lights; cost \$5500; hot-water heat, \$625. (Lately noted.)

Fla., Chipley.—Isaac A. Stewart has plans by and let contract to F. B. Reverette, Chipley, to erect residence; materials purchased. (Lately noted.)

Fla., Miami.—F. W. Schwertley, Modale, Iowa, has plans by and let contract to P. S. Scherer, Miami, to erect residence; 30x30 ft.; with sunroom 8.6x16 ft. and 2 porches; tile; tile roof; edge grain oak over other flooring; fireplace; electric lights; cost \$5300. (Lately noted.)

Fla., West Palm Beach.—G. H. Perkins, Rochester, N. Y., let contract to Clarence Wilcox, West Palm Beach, to erect \$25,000 residence.

Miss., Clarksdale.—J. A. Martin let contract to J. T. Skinner, Clarksdale, to erect residence.

Mo., St. Louis.—W. J. Himmelsheim, 5000 Lansdowne St., has plans by and let contract to G. A. Sundquist, 4961 Itasca St., to erect residences at 4972-76-80 Neosho St., 5031 S. Kingshighway, 4937 Itasca St.; 25x30 ft.; 2 stories; 6 rooms and bath; stone foundation; brick walls; clay tile roof; hardwood floors; cost \$3400; hot-air heat, \$135. (Lately noted.)

Okla., Tulsa.—A. P. Gerlach let contract to W. T. Rudd, Tulsa, to erect bungalow; 30x48 ft.; shingle roof; red oak floors; cost \$4000; lighting \$100. Address owner. (Lately noted.)

Okla., Tulsa.—R. A. Burns, St. Louis and Tulsa, let contract to Bush-Burns Realty Co., 212½ S. Main St., Tulsa, to erect residence at 17th and Norfolk Sts., and 3 on Owassa St., between 15th and 16th Sts.; 29x40 ft.; brick and frame; Rex roofing; hardwood floors; hot-air heat; electric lights; cost \$7000 each; H. Guth, Archt., St. Louis. (Lately noted.)

Tex., Brownwood.—E. J. Miller let contract to J. W. O'Neal, Brownwood, to erect residence; 2 stories; 36x42 ft.; brick; asbestos roof; oak floors; hot-air heat; cost \$7000; Henry Mount, Archt., Brownwood. Address Contr. (Lately noted.)

Tex., Houston.—J. L. Mitchell let contract H. H. Yates, 1406 Wrightwood Ave., Houston, to erect residence; 40x60 ft.; hollow tile; shingle roof; oak floors; dumbwaiter; cost \$14,000; A. Delisle, Archt., 702 Main St., Houston. (Lately noted.)

Tex., Houston.—Mike Genora has plans by and let contract to R. L. Waide, Houston, to erect residence; 32x40 ft.; 2 stories; 7 rooms, 2 baths, sun parlor and sleeping porch; frame, brick veneer and stucco; cypress shingle roof; oak floors except tile porch, bathroom and kitchen floors; hot-air heat; city electric lights; cost \$12,000 complete. (Lately noted.)

W. Va., Borderland.—Borderland Coal Co. let contract to W. B. Elswick, Williamson, W. Va., to erect 40 one-story brick cottages; asphalt shingle roofs; hardwood floors; electric lights.

GOVERNMENT AND STATE

Ga., Fort Oglethorpe.—Convalescent-House, American Red Cross Association, Washington, D. C., let contract to erect convalescent-house at Chickamauga Park; cost \$21,000. (See Association and Fraternal.)

Tex., Huntsville.—Postoffice.—Rather Henry Estate is reported to have let contract to Ben H. Powell to erect building to be occupied by postoffice.

Tex., San Antonio.—Warehouses.—War Department, Washington, D. C., let contract to Thomas & Harmon Co. to erect 2 warehouses for Signal Corps, south of Camp Travis; 60x565 ft. each; concrete and hollow tile; fireproof; Col. Daniel McCarthy, Southern Department Quartermaster.

Va., Portsmouth.—Storage.—Bureau of Yards and Docks, Navy Department, Washington, D. C., let contract to Nichols & Lindemann, Norfolk, to erect storage building at Naval Reservation; 46x77 ft.; 2 stories; concrete and brick; tar and gravel roof; concrete floors; cost \$35,750; all sub-contracts let. (Lately noted.)

HOTELS

Okla., Duncan.—J. D. Wade let contract to erect 60-room hotel.

W. Va., Charleston.—Holly Hotel, Inc., lately noted to have let several contracts for erection of hotel addition; let other contracts as follows: Plastering, Fred. Wilhelm Co.; glass and glazing, Wm. Glenn Glass Co.; carpenter, brick and general construction, B. C. Frye; all of Cincinnati; plans by C. and E. A. Weber, Cincinnati; call for 150-room structure; fireproof; Webster steam-heating system; city electric lights; twin elevators; cost \$175,000. (Lately noted.)

MISCELLANEOUS

Fla., Miami.—Gymnasium, etc.—J. H. Havin, Cincinnati, let contract to Wolfe & Ewing Construction Co. to remodel building for stores, gymnasium and drill hall; 90x150 ft.; cost \$10,000; Gordon E. Mayer, Archt., Hippodrome Bldg., Miami. (See Stores.)

SCHOOLS

Fla., St. Petersburg.—Cal. F. Thomas Co., St. Petersburg, general contractor, at \$141,422, to erect high school, let contract at about \$13,000 to A. T. Squires Lumber Co., St. Petersburg and Dade City, Fla., for lumber; auditorium to seat 1200; Wm. B. Ittner, Archt., St. Louis. (Other contracts previously noted.)

Tex., Buffalo.—Buffalo Ind. School Dist. let contract at \$7500 to Parker Construction Co., Houston, to erect school. (Lately noted.)

Tex., Fort Worth.—City Board of Education, M. H. Moore, Supt., let contract to Hedges Construction Co. to erect west wing of Fort Worth High School; will soon let contract to erect North Side High School to cost \$125,000; also having plans prepared for \$25,000 addition to Van Zandt school. (Previously noted.)

STORES

D. C., Washington.—National Dollar Shirt Shop let contract to M. Gummernick to remodel store, 942 F St. N. W.; cost \$3000.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Aerial Cableways.—See Tramway (Gravity).—Lebow Bros. Co.

Automobile Accessories, etc.—Atlantic Equipment Co. (marine and contractors' supplies), 149 Broadway, New York.—Correspondence with manufacturers of hardware and automobile accessories; view to agencies. (Preparing catalog in Spanish and Portuguese.)

Boiler (Marine).—Yarbrough Company, Powhatan, La.—Prices on second-hand Scotch marine boiler, 100 H. P. or larger; insured for 1 year.

Boilers and Engines.—Young-Johns Lumber Co., C. J. Young, Secy., Hartsboro, Ala. Prices on 100 to 150 H. P. boilers and 50 to 75 H. P. engines of good condition. (See Planer, etc.)

Brick.—E. P. Boone, Box 1934, Tulsa, Okla.—Prices on brick for \$6000 residence.

Bridge Construction.—Palm Beach County Commrs., L. Trevette Lockwood, Chmn., West Palm Beach, Fla.—Bids until May 7 to construct bridge across Lake Worth; 150-ft. steel swing draw or Scherzer rolling lift steel span with clear opening of 60 ft.; plans and specifications on file with R. F. Goodman, County Engr., West Palm Beach, and will be furnished for \$15.

Bridge Construction.—Ouachita Parish

Fla., Miami.—J. H. Havin, Cincinnati, let contract to Wolfe & Ewing Construction Co. to remodel building on 11th St.; 90x150 ft.; lower floor, stores; second floor, gymnasium and drill hall; cost \$10,000; Gordon E. Mayer, Archt., Hippodrome Bldg., Miami. (Lately noted.)

Ga., Hawkinsville.—Moore Bros. let contract to W. D. McEachern, Hawkinsville, to remodel Rudich Bldg. for department store; install plate-glass front, show windows, etc.

S. C., Rock Hill.—Blankenship & Johnson let contract to A. F. Hester, Rock Hill, to erect building; 100x28 ft.; 1 story and basement.

Tenn., Knoxville.—Morris Bart let contract to J. M. Dunn & Son, Knoxville, to erect store building; 50x125 ft.; reinforced concrete and brick; gravel roof; wood floors; concrete sidewalks; electric elevators; cost \$50,000; steam heat \$2000; electric lights \$800; Albert Baumann, Archt., Knoxville. (Lately noted.)

Tex., Orange.—Geo. E. Holland let contract to W. L. James, Orange and Port Arthur, Tex., to erect store and office building; 80x140 ft.; brick; composition Barrett specification roof; Ceramic tile and wood floors; steam heat; electric lights; cost \$53,000; Babin & Beck, Archts., Beaumont, Tex. (Lately noted.)

W. Va., Northfork.—L. G. Toney let contract to H. A. Lucas, Kimball, W. Va., to erect store building; 26x65 ft.; texture brick with steel girders; composition roof; wood floors; cost \$15,000; steam heat \$800. Pedigo & Garry, Archts., Bluefield, W. Va. Address all proposals to contractor. (Lately noted.)

W. Va., Northfork.—Harry Totz let contract to H. A. Lucas, Kimball, W. Va., to erect lately-noted store building; 48x65 ft.; 3 stories; brick; Barrett specification roof; wood floors supported on steel beams; cost \$28,000; steam heat; Pedigo & Garry, Archts., Bluefield, W. Va. Address Contr. (See Machinery Wanted—Building Materials; Steel; Metal Ceilings.)

WAREHOUSES

La., Monroe.—Monroe Mill & Elevator Co. has plans by and let contract to R. Cassidy, Monroe, to erect grain warehouse; 80x100 ft.; frame; composition roof; frame floor construction; natural gas heat; electric lights; cost \$3500. (Lately noted.)

La., Monroe.—Monroe Hardware Co. let contract to Ike Davis, Monroe, to erect warehouse; 110x210 ft.; 3 stories and basement; brick and concrete; built-up roof; concrete and wood floors; electric wiring; 2 freight elevators; cost \$50,000; J. W. Smith, Archt., Monroe. (Previously noted.)

Tex., San Antonio.—War Department, Washington, D. C., let contract to Thomas & Harmon Co. to erect 2 warehouses for Signal Corps, south of Camp Travis; 60x565 ft. each; concrete and hollow tile; fireproof; Col. Daniel McCarthy, Southern Department Quartermaster. (See Government and State.)

Police Jury, R. P. Boyd, Parish Engr., Monroe, La.—Open bids April 4 to construct bridge; all material purchased except cement; estimated cost of bridge \$14,500; fill and roadway \$2000; ten 36-ft. girder spans on 15 to 27-ft. high columns; piles under each column and abutments; 16-ft. clear roadway; plans and specifications at office of R. P. Boyd, Parish Engr., Monroe.

Bucket (Orange Peel).—G. C. Buquo, Hot Springs, N. C.—Prices on orange peel bucket, medium capacity. (See Engine (Hoisting), etc.)

Building Materials.—H. A. Lucas, Kimball, W. Va.—Prices on structural steel, metal ceilings and other building materials for \$28,000 store building at Northfork, W. Va.

Building Materials.—Golden Belt Refining Co., J. N. Bowen, Mgr., 907 Oil Exchange Bldg., Oklahoma City, Okla.—Building materials for oil refinery. (See Oil-refinery Equipment.)

Cans.—See Tanks, etc.—John A. Harvey.

Cars (Tank).—Golden Belt Refining Co., J. N. Bowen, Mgr., 907 Oil Exchange Bldg., Oklahoma City, Okla.—To buy or lease tank cars. (See Oil-refinery Equipment.)

Cars (Dump).—Manganese Associates, Stuarts Draft, Va. (31 State St., Boston, Mass.).—Prices on six 4-yd. Western 2-

way dump cars, 36-in. gauge; for Kennedy Mine, Stuarts Draft.

Cars (Mine).—Stucky-Hamilton Mining & Milling Co., H. A. Stucky, Mgr., 1013 Farragut St., Laredo, Tex.—Data and prices on mine cars.

Castings, etc.—Treasury Department, Bureau Engraving and Printing, Washington, D. C.—Bids to furnish castings; also paper (postage stamp, internal revenue and check); for year beginning July 1; information on application.

Chemicals, etc.—I. M. Koskas, Jr., P. O. Box 21, Tunis, North Africa.—To represent manufacturers of: Chemicals; glazed kid leather; refiners' sugar; starch in bags of 50 kilograms; oil and naphtha for cycles; cotton cloth and crash for suiting; sheeting; prints; broadcases; chevrons; zephyrs; shirtings; glassware; oilcloth for floor covering; polished rice; chocolate in cakes, 125 to 250 grammes; satin American walnut wood, 1 in. thick; hosiery; shoe pegs, tacks and wire nails; binder twine; yarns; hemp shoe thread.

Chemicals (Sulphur Flour, etc.; Caustic Soda; Bluestone).—See Insecticide Materials and Machinery.—W. E. Gore.

Cotton Machinery.—Niota Development Association, H. T. Burn, Secy., Niota, Tenn. Data and prices on cotton-spinning machinery.

Crane (Traveling).—Kewanee Boiler Co., 1420 McGee St., Kansas City, Mo.—Prices on hand-power or electric-driven traveling crane on track, similar to locomotive type, capacity 20,000 lbs.; boom as long as possible; give description.

Derrick (Stiff Leg).—Kewanee Boiler Co., 1420 McGee St., Kansas City, Mo.—Prices on stiff-leg derrick, with 60-ft. boom, to handle 25,000 lbs.; hand-power; proper stiff legs and all irons, including sheave blocks; no cables; derrick irons complete.

Derrick (Stiff Leg).—G. C. Buquo, Hot Springs, N. C.—Prices on stiff-leg derrick outfit, with ropes. (See Engine (Hoisting), etc.)

Drainage System.—Lake Long Drainage District, Edward J. Gay, Prest., Plaquemine, La.—Bids until April 27 to dredge system of canals, varying from 16-ft. bottom width and 2½ ft. deep to 100-ft. bottom width and 8½ ft. deep; 1,400,000 cu. yds. excavation; also separate bids for clearing right of way and removing merchantable timber; issue \$175,000 bonds; specifications from Jos. A. Grace, Secy.-Treas.; map on file in office of district.

Drills.—Liberty Mining & Royalty Co., Jas. T. Kelley, Secy., Box 362 Oklahoma City, Okla.—Prices on drills.

Electrical Equipment.—Dept. of Justice, office Supt. of Prisons, Washington, D. C.—Bids until Apr. 16 to furnish and deliver (at United States Penitentiary, Atlanta, Ga.) switchboard, power tablet and electric feeders for light and power for east main cell wing in accordance with specifications; copies and further information upon application.

Electrical-power Equipment.—Bureau Yards and Docks, Navy Department, Washington, D. C.—Bids until April 8 for furnishing and installing exciters, switchboards, cell structures, cell equipment, wiring, transformers and other miscellaneous electrical-power plant equipment in power plants at navy-yards, Norfolk, Va., and Philadelphia, Pa.; drawings and specification (No. 2762) obtained on application to Bureau or to Commandant of navy-yards named.

Electric Fixtures.—E. P. Boone, Box 1934, Tulsa, Okla.—Prices on electric fixtures for \$6000 residence.

Electrical Fixtures.—L. A. Casey, San Antonio.—Prices on electrical fixtures for two 6-room residences.

Elevator.—A. L. Womack Co., Bristol, Tenn.—2-story travel hand elevator with 6x7-ft. platform.

Engine (Hoisting).—Planters' Oil Mill & Gin Co., Kosciusko, Miss.—Prices on small 3-drum hoisting engine; for operating clam-shell bucket, unloading coal cars.

Engine.—City of Metter, Ga., W. H. Lanier, Mayor.—Data and prices on 25 H. P. engine and equipment to gear same with engine now in use, so as to operate both together or each separately; for electric plant improvement.

Engines.—See Boilers and Engines.—Young-Johns Lumber Co.

Engine (Corliss).—Hackley Morrison, 204 Moore Bldg. (P. O. Drawer 1337), Richmond, Va.—Prices on 100 H. P. Corliss engine for Virginia delivery.

Engine (Hoisting).—G. C. Buquo, Hot Springs, N. C.—Prices on 2 or 3-drum

hoisting engine with boiler; orange-peel bucket, medium capacity; stiff-leg derrick outfit, with ropes; consider second-hand, A-1 condition; for delivery near Macon, Ga.

Flooring.—E. P. Boone, Box 1934, Tulsa, Okla.—Prices on hardwood flooring for \$6000 residence.

Foods.—Bayley & Co., Georgetown, Demerara, B. G.—To represent manufacturers and exporters of foodstuffs.

Fire Shutters.—C. E. Corley, Lexington, S. C.—Fire shutters for 2-story courthouse.

Furnace (Iron).—Mineral Ridge Manganese Corp., Chas. F. Nelson, Secy., Strasburg, Va.—Hot-blast iron furnace, 50 to 100 tons daily capacity, with equipment of blowers, stoves, etc.; in condition to be repaired for use at reasonable cost.

Grinding Mills (Acetate of Soda).—Kana-wha Engineering Co., 200 National City Bank Bldg., Charleston, W. Va.—Prices on mill for grinding acetate of soda; capacity about 1000 lbs. per hour.

Hardware.—Atlantic Equipment Co. (marine and contractors' supplies), 149 Broadway, New York.—Prices on hardware from manufacturers; view to agencies. (See Automobile Accessories, etc.)

Heating Plant.—Office Comms. District of Columbia, Room 509 District Bldg., Washington, D. C.—Bids until April 11 to install steam-heating systems in engine-houses Nos. 1 and 5; proposal forms, plans and specifications obtainable from Chief Clerk, Engr. Department, 427 District Bldg.

Hoists (Electric).—Mallory Machinery Co., 522 Light St., Baltimore, Md.—Prices on two 20 or 25 H. P. electric hoists, reversible controller, 110 volt, D. C.

Insecticide Materials and Machinery.—W. E. Gore, Orlando, Fla.—Data and prices on mixers, etc., for making insecticides for spraying orange trees; also prices on materials, including whale oil soap No. 3, fish oil soap, flowers of sulphur, sulphur flour, ammonia (26 degree), sulphate of copper (bluestone), caustic soda and Paris green.

Iron Posts.—Baltimore (Md.) Board of Awards, City Hall.—Bids until April 10 to furnish ornamental iron lamp posts; specifications on file with W. Mohr, Supt. of Lamps and Lighting.

Laundry Equipment.—Chas. E. Gross, County Auditor, Courthouse, Dallas, Tex.—Bids until April 8 to erect building and furnish and install laundry machinery; plans and specifications on file with F. J. Woerner, Archt., Sumpter Bldg., Dallas.

Laundry Machinery.—Rance Roberts, Leitchfield, Ky.—Addresses of manufacturers of and dealers in laundry machinery; new and second-hand.

Locomotives.—Manganese Associates, Stuarts Draft, Va. (31 State St., Boston, Mass.).—Prices on 10x16 saddle tank Dinky, 36-in. gauge; 25 to 30-ton geared locomotive, standard gauge; for Kennedy Mine, Stuarts Draft.

Locust Pins.—H. E. Wheeler, 405 Lexington Ave., New York.—Correspondence with lumber companies prepared to furnish locust pins in large quantities.

Lumber.—E. P. Boone, Box 1934, Tulsa, Okla.—Prices on soft and hardwood lumber for \$6000 residence.

Lumber.—Lighthouse Inspector, Baltimore, Md.—Bids until April 5 to furnish 120,000 ft. of lumber, delivered at Baltimore; information on application.

Matching Machines.—See Planer and Matcher.—Demarke & MacCammon.

Machine Shop Equipment.—Colonial Lumber Co., Bearden, Tenn.—Prices on machine shop equipment; lathe to swing 24 to 30 in. over bed and more or less of 10 ft. between centers; good-sized planer, shaper and drill press; new or second-hand.

Manufacturers.—Bayley & Co., Georgetown, Demerara, B. G.—To represent manufacturers and exporters of various products.

Metal Ceilings.—H. A. Lucas, Kimball, W. Va.—Prices on metal ceilings for \$28,000 store building at Northfork, W. Va.

Metal-working and Nickel-plating Plants.—See Vending Machine Manufacture.—O. Holm Jensen.

Mixers.—See Insecticide Materials and Machinery.—W. E. Gore.

Oil-refinery Equipment.—Golden Belt Refining Co., J. N. Bowen, Mgr., 907 Oil Exchange Bldg., Oklahoma City, Okla.—Prices on building materials and operating machinery for lubricating oil refinery, using only asphalt base crude; daily capacity 1000 bbls.; also wants to buy or lease tank cars.

Paving.—Board of Public Works, D. B.

McKay, Chrmn., Tampa, Fla.—Bids until April 2 to pave Keys St., Highland Ave. to Ola St., cement concrete, 24 ft. wide, 950 sq. yds.; Ola St., Keys to West St., cement concrete, 18 ft. wide, 450 sq. yds.; West St., Ola St. to Massachusetts Ave., cement concrete, 20 ft. wide, 1000 sq. yds.; specifications from City Engr.

Pipe.—Graham Lumber Co., Graham, Va. Prices on 1200 ft. 1-in. pipe.

Piping.—National Oil & Refining Co., George H. Hodge, V.-P. and Gen. Mgr., Princeton, Ky.—Prices on piping.

Planer and Matcher.—Demarke & MacCammon, Arkansas City, Ark.—Prices on small planer and matcher.

Planer, etc.—Young-Johns Lumber Co., C. J. Young, Secy., Hurtsboro, Ala.—Prices on Woods rebuilt or used No. 404 planer; also boilers and engines in first-class engines.

Plumbing.—E. P. Boone, Box 1934, Tulsa, Okla.—Prices on plumbing for \$6000 residence.

Press (Car Wheel).—Chas. A. McLean, 412 Citizens' Bank Bldg., Norfolk, Va.—Prices on 100-ton hydraulic wheel press with capacity for 36-in. to 40-in. car wheels.

Pump (Gasoline).—Graham Lumber Co., Graham, Va.—Prices on gasoline pump.

Pump (Sand; Centrifugal).—Hackley Morrison, 204 Moore Bldg., 16½ N. 9th St. (Box 1337), Richmond, Va.—Prices on 12-in. centrifugal sand pump, for direct connection to steam engine, but preferred without engine; first-class condition; prefer Morris Machine Works pump; give complete dimensions and data.

Pumps.—Stucky-Hamilton Mining & Milling Co., H. A. Stucky, Mgr., 1013 Farragut St., Laredo, Tex.—Data and prices on deep well pumps.

Rails.—Southern Machinery Exchange, Somerset, Ky.—15 tons 25-lb. relay rails; delivery Whitesburg, Ky.

Rails.—Manganese Associates, Stuarts Draft, Va. (31 State St., Boston, Mass.).—Prices on 2000 ft. 35 to 40-lb. relaying rail, for Kennedy Mine, Stuarts Draft.

Rings (Metal; Perforated).—John A. Harvey, Box 42, Roanoke, Va.—Perforated metal rings 3 and 4 in. or 4 or 8-in. diam., 1 or more inches wide. (See Tanks, etc.)

Road Construction.—Etowah County Comms., Gadsden, Ala.—Bids until May 7 to construct 4.47 mi. Attalla and Hokes Bluff Rd., being portion of State Trunk Rd. No. 5 and 23; 7.8 acres clearing and grubbing, 437 ft. vitrified pipe, 15.34 cu. yds. earth excavation, 79 cu. yds. concrete, 6000 cu. yds. clay gravel, 650 cu. yds. slag, 36, 278 sq. yds. bituminous surface treatment; plans and specifications on file with State Highway Dept., Montgomery, and Prest. of Comms.' Court, Courthouse, Gadsden; additional information from W. S. Keller, State Highway Engr., Montgomery.

Road Machinery.—A. F. Black, Clerk Lincoln County, Hamlin, W. Va.—Prices on 10-ton steam road roller; heavy road grader; 18 No. 1 wheel scrapers; 6 No. 2½ wheel scrapers.

Sewer Construction.—Wm. N. Coale, Mayor, First National Bank Bldg., Havre de Grace, Md.—Bids until April 8 to construct 2.23 mi. of sewers; plans, etc., on file with Mayor.

Shovel (Steam or Electric).—Empire Cement & Limestone Co., Atlanta, Ga.—Prices on second-hand full revolving traction steam or electric shovel.

Shovel (Steam).—Manganese Associates, Stuarts Draft, Va. (31 State St., Boston, Mass.).—Prices on steam shovel, 1 to 1½ yd. revolving on standard-gauge railroad

trucks; for Kennedy Mine, Stuarts Draft.

Shovel (Steam).—J. L. Conover & Co., Carbon, Indiana.—Prices on model 36 Marion steam shovel for fireclay grinding plant.

Sorghum Evaporators, etc.—Joe Lee Ferguson, Hale Center, Tex.—Data and prices on steam sorghum mill; daily capacity 400 to 500 gals.

Sorghum Evaporators, etc.—R. E. L. Binnion, R. F. D. No. 1, Van Alstyne, Tex.—Data and prices on evaporator, etc., for sorghum mill; steam power; capacity 400 to 500 gals. daily.

Skylights.—Chas. J. and K. Marshall, Selma, Ala.—Prices on skylights for horse, mule and cattle barn, 90x120 ft.

Sidings.—Chas. J. and Ed K. Marshall, Selma, Ala.—Prices on sidings for horse, mule and cattle barn, 90x120 ft.

Soap (Whale Oil and Fish Oil).—See Insecticide Materials and Machinery.—W. E. Gore.

Steel.—H. A. Lucas, Kimball, W. Va.—Prices on structural steel for \$28,000 store building at Northfork, W. Va.

Steel Furnace, etc.—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until April 22 for electric steel furnace, manganese link pins, electric drill, copper magnet wire; split tee connectors, storage batteries, rubber tires; paper, bristol board and creosoted piles; blanks, etc., relating to circular (No. 1211) obtainable at this office or offices Asst. Purchasing Agents, 24 State St., New York; 606 Common St., New Orleans, and Fort Mason, San Francisco; also from United States Engr. offices in principal cities throughout United States.

Tanks, etc.—John A. Harvey, Box 42, Roanoke, Va.—Data and prices on tanks or cans, 10 to 25 gals. capacity; for use under air pressure and to have safety valve or steam gauge; also prices on small valves, such as used on oil burners, etc.; and perforated metal rings, 3 and 4 in., or 4 and 8-in. diam., and 1 in. (or more) wide.

Tanks (Pressure).—Mallory Machinery Co., 522 Light St., Baltimore, Md.—Prices on pressure tanks varying from 30-in. diam. to 5 ft., and from 6 ft. to 16 ft. long.

Textiles.—See Chemicals, etc.—I. M. Koskas, Jr.

Tools.—South Park Independent School, W. C. Holland, Director of Shops, Beaumont, Tex.—Catalogues of machine tools and appliances for vocational school.

Tramways (Cable).—Stucky-Hamilton Mining & Milling Co., H. A. Stucky, Mgr., 1013 Farragut St., Laredo, Tex.—Data and prices on cable tramways.

Tramway (Gravity).—Lebow Bros. Co., 123 Summers St., Charleston, W. Va.—Prices on equipment complete or cables for aerial tramway from 1800 to 2000 ft. long, operated by gravity, to convey coal from top mountain to railroad.

Valves.—John A. Harvey, Box 42, Roanoke, Va.—Prices on small valves. (See Tanks, etc.)

Vault Materials.—C. E. Corley, Lexington, S. C.—Materials for fireproof vault for courthouse.

Vending Machine Manufacture.—O. Holm Jensen, 3616 Rebecca St., St. Louis, Mo.—Correspondence with manufacturers equipped to make small vending machine with nickel-plated base and glass top.

Ventilators.—Chas. J. and Ed K. Marshall, Selma, Ala.—Prices on ventilators for horse, mule and cattle barn, 90x120 ft.

RAILROAD CONSTRUCTION

RAILWAYS

Ark. & La. Smith.—The recent press report that the Missouri, Kansas & Texas R. R. would build a line between Fort Smith and Red Oak, Okla., is denied by the company.

Ga., Byromville.—Americus & Atlantic Railroad, it is reported will complete track immediately from Chat River crossing to Methven's store, about 1 mi. J. S. Morton, Byromville, Ga., is Pres. and Gen. Mgr.

Okla., Collinsville.—The Union Traction Co., Coffeyville, Kan., of which D. H. Sigis is president, says in a letter to the Manufacturers Record that it does not contemplate building an electric railway from Nowata to Collinsville, Okla., at present, owing to scarcity of labor and material and the high price of the latter. This refers to a recent press report.

Tex., Houston.—Ed Kennedy, purchasing agent of the Houston, Richmond & Western Traction Co., 905 Foster Bldg., Houston, writes the Manufacturers Record that the bonds for the Houston and San Antonio Ry. were sold to Howard Kenyon of Houston, who also has the contract to build the road, to be 186 mi. long. Line will be called Houston, Richmond & San Antonio.

W. Va., Fairmont.—The Greater Fairmont Investment Co. says it is not contemplating construction of any railroad at the present time. This refers to the recent press report that it would build a 2-mi. line to connect with the Baltimore & Ohio Railroad.

STREET RAILWAYS

N. C., Winston-Salem.—Southern Public Utilities Co. will do considerable relaying of track in Winston-Salem. Z. V. Taylor is Pres.



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but—*

For the Welfare of the World

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Millions of American boys and men must give up the comforts of home, the pleasures and anticipations of life, business and loved ones, and suffer in the trenches, on the sea, and in the air, and offer their lives a sacrifice on the altar of the nation's life. * * *

As these men have heard the call of God through the voice of the nation, the question comes to every one who cannot go to the battle front, What am I doing to help to bear my share of the burden and stand behind these men and the nation, to ease the sufferings of the soldiers and the sailors, and to equip them to the utmost extent of science and money to make effective their work upon the battlefields?

What am I doing to equip them with guns, and explosives, and to feed and to clothe them, to build ships to carry the foodstuffs and the munitions to them, to produce foodstuffs, or to conserve foodstuffs for them?

These men are offering their lives to save me and all that I hold dear on earth. Shall I be a coward, mentally, physically

or financially? Shall I be a slacker and stand back and let these men suffer and die, hoping that I may live in peace and comfort?

* * * * *

It should not be necessary for this subscription campaign to extend over weeks of solicitation and active campaigning. On the contrary, in advance men should have made their plans and be ready to make their subscription to the utmost extent of their ability on the opening day, that enthusiastically and joyously they might thus stand behind the Government in this great work to save our country from ruin.

The soldiers who carried the banner, "We have given ourselves. What will you give?" call from the battlefield and the camp, and their voice should sink deep into every soul.

What have you given?

What have you done to make possible our success in the fight which we are making for your life?

In churches, in schools and everywhere else, the work should begin immediately, and every man and woman should be planning now, with a view to trying to be the first to make a subscription on the opening day, the anniversary day of this, the greatest war of all the ages, and the war which means the most for civilization of all the wars since man was first placed on earth.

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CHAS. R. BURNETT, Vice-President

FINANCIAL NEWS

FINANCIAL CORPORATIONS

Ala., Bridgeport. — American National Bank, capital \$25,000, will begin business about Apr. 10; Robert Stephenson, Pres.; K. A. McFarlane, J. J. Williams, V.-Ps.; F. W. Carr, Cash.

Fla., Manatee. — The Manatee Board of Trade is working to organize a bank to succeed the Manatee Banking Co., which liquidated last November. Organization not yet perfected. G. W. Adams is Pres. of the Board.

Fla., Vero. — First National Bank of Vero has begun business in the new Seminole Bank Bldg. Chas. B. Jennings is Cash.

Ga., Blakely. — Citizens' Bank of Blakely is chartered; capital \$50,000. Incorporators: W. M. Sutton, W. H. Flowers, J. R. Owen, J. C. Chancey and others.

Ga., Rebecca. — Farmers and Merchants' Bank chartered; capital \$15,000. Business has begun. The new bank has taken over the business of the Bank of Rebecca.

La., Columbia. — A new bank is being organized, capital to be about \$25,000. J. E. McInahan, and George T. Martin, Pres., Caldwell Parish school board, are the principal promoters.

Okla., Ardmore. — City State Bank, capital \$50,000, surplus \$5000, is organized and business is expected to begin about April 15. A. H. Palmer, Pres.; O. H. Wolverton, V.-P. and Cashier, and B. S. Frost, Asst. Cashier.

Okla., Banning. — Guaranty State Bank chartered; capital \$15,000; surplus \$1500; H. L. Cox, Pres.; Durant; H. G. Brackett and J. S. Dawson, V.-Ps.; J. F. Gregory, Cash. Business began March 15.

Okla., Richardville. — The Richardville State Bank, capital \$10,000, is incorporated by Eastman Richard, George W. Fields and A. J. Fishie.

S. C., Chesnee. — Citizens' Bank chartered, capital \$15,000, began business last November. S. T. Reid, Pres.; George W. Wall, V.-P., and John B. Cash, Treas.

S. C., Cope. — Bank of Cope, capital \$30,000, is organized with F. A. Adden, Pres.; J. I. Valentine, V.-P.; H. E. Smith, Atlanta, Cash. Business is to begin as soon as charter is granted.

Tenn., Memphis. — Liberty Savings Bank & Trust Co., capital \$100,000, will begin business about Apr. 15; incpts., M. G. Bailey, J. R. Buchignani, J. T. Morgan, F. L. Montverde, J. M. Walker, J. P. Norfleet, Abe Scharff, Sim F. Clark, W. B. Cleveland, Arthur Halle and Phil M. Canale. It is stated that Mr. Bailey will probably be Pres. and J. R. Buchignani Cash.

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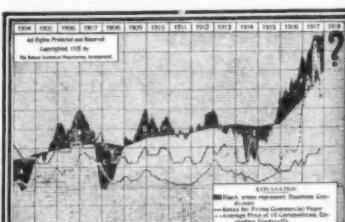
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Tex., Denton.—Jagoe Abstract Co. is chartered; capital \$12,000; inceptors, J. W. Jagoe, Jr., C. C. Wright and F. L. Luckel.

Tex., Grand Prairie.—First State Bank has applied for charter; capital \$25,000; organizers, E. Cole, Dallas; H. G. Wharton, Wm. Loden and others, Grand Prairie.

Tex., San Angelo.—Tom Green County Abstract Co., capital \$12,000, inceptd. by R. J. Atkinson, J. D. Hassell and E. I. Jackson.

Va., Appomattox.—Farmers' National Bank, capital \$50,000, is organized and will begin business early in June. C. W. Hancock, Pres.; Dr. Mott Robertson, V.-P., and A. R. Harwood, Cash.

Va., Big Stone Gap.—Interstate Finance & Trust Co. has applied for charter under title of First National Bank; capital to be \$50,000.

Va., Roanoke.—Liberty National Bank has made application for charter; capital \$100,000.

NEW SECURITIES

Ark., Clarksville.—(Road).—\$250,000 of bonds Road District No. 1, Johnson County, have been purchased by Edgar Hahn of Little Rock.

Ark., Little Rock.—(Paving).—\$65,000 of bonds Street Improvement Dist. No. 18 have been purchased by the Union Trust Co., Little Rock.

Ark., Little Rock.—(Highway).—\$2,750,000 of 6 per cent. 20-year Arkansas-Louisiana Highway Improvement Dist. bonds have been purchased at a premium by a syndicate composed of the Mercantile Trust Co., Mississippi Valley Trust Co., Compton & Co. and Whittaker & Co.

Fla., Arcadia.—(Road, Bridge).—Bids will be received until noon April 15 for \$330,000 of 6 per cent. \$500 denomination bonds Special Road and Bridge Dist. No. 4, De Soto County, and maturing 1924 to 1948, inclusive. A. L. Durrance is Clerk Board County Commrs.

Fla., Chipley.—(School).—Bids will be opened May 6 for \$25,000 of 6 per cent. \$1000 denomination bonds Special School Dist. No. 1, Washington County, dated April 1, 1918, and maturing April 1, 1938. J. H. Varum is County Supt. at Vernon, Fla.

Fla., Fort Pierce.—(School).—Bids will be opened in May (date not set) for \$25,000 of 6 per cent. 10-30-year \$1000 denomination bonds Special Tax School Dist. No. 11, St. Lucie County. Address School Board.

Fla., Palatka.—(School).—\$85,000 Palatka School Dist., Putnam County, bonds are voted. Address Chrmn. County Board of Public Instruction.

Fla., Quincy.—(School, Funding).—\$30,000 of school and \$12,000 funding 6 per cent. Gadsden County bonds were recently voted and will be offered for sale about June 1. G. B. Gregory is County School Trustee.

Fla., Tampa.—(Road).—The \$875,000 of 5 per cent. 30-year Hillsborough County bonds recently offered have been purchased by the contractors for the road, Davis & Webb, at 98 and accrued interest, bonds not to be delivered until the third liberty loan is out of the way. W. P. Culbreath is Clerk Board County Commrs.

Fla., West Palm Beach.—(Refunding).—Ordinance has been introduced in the City Council providing for the issuing of \$50,000 of 6 per cent. \$500 denomination refunding bonds, maturing 1919 to 1935. Address The Mayor.

Ga., Cusseta.—(Road).—Question of issuing \$75,000 Chattahoochee County bonds is under consideration. Address County Commrs.

Ga., Jackson.—(School).—Election will probably be held to vote on bonds. Address School Board.

Ga., Reidsville.—(Light).—Election is to be held April 29 to vote on \$10,000 of electric-light plant bonds. Address The Mayor.

La., Kinder.—(School).—April 16 election is to be held to vote on \$60,000 of Kinder School

Dist., Allen Parish, bonds. Address School Board.

La., Plaquemine.—(Drainage).—Bids will be received until 11 A. M. April 27 for \$175,000 of 5 per cent. bonds Lake Long Drainage Dist. Edward J. Gay is Pres.

La., Pointe a la Hache.—(Dipping Vats).—\$7000 of bonds for construction of dipping vats in Plaquemine Parish will be offered for sale. Address Police Jury.

Miss., Crystal Springs.—(Light).—\$5000 of bonds are to be issued. Address The Mayor.

Mo., Savannah.—(Road).—Election is to be held in Andrew County April 16 to vote on \$1,000,000 of bonds. J. J. Miller is County Clerk.

N. C., Edenton.—(Street).—\$45,000 of 6 per cent. bonds have been sold at par and accrued interest, less \$62.50 for lithographing, as follows: Citizens' Bank, \$15,000; Bank of Edenton, \$30,000.

N. C., High Point.—(Street).—\$97,000 of bonds have been purchased at \$1621.84 premium by R. M. Grant & Co., New York.

N. C., Lillington.—(Road).—At public auction at noon May 1 the Board of Commrs. of Grove Township, Harnett County, will offer for sale \$30,000 of 6 per cent. 20-year \$500 denomination township road bonds, dated May 1, 1918, and maturing May 1, 1938. J. R. Baggett is Atty. for Commrs. Further particulars will be found in the Proposals Department.

Tenn., Dyersburg.—(Funding).—Election is to be held, it is reported, to vote on \$25,000 of bonds. Address The Mayor.

Tenn., Jacksboro.—(School).—\$12,000 of 5 per cent. Campbell County bonds have been purchased at \$12,012, less \$720 for attorney's fees, by John Nuveen & Co., Chicago.

Tenn., Johnson City.—(Courthouse, School).—Bids will be received until 7 P. M. Apr. 30 for \$75,000 of 5½ per cent. courthouse and \$50,000 of 5 per cent. 5-40-year school bonds. W. O. Dyer is City Mgr. and R. C. Warren Recorder. Further particulars will be found in the Proposals Department.

Tex., Austin.—Bonds approved by Atty.-Gen.: \$300,000 Road District No. 1 and \$99,999 Road District No. 9, Van Zandt County 5½ per cent. bonds; \$1200 of 5 per cent. 10-20-year Runnels County Common School District No. 6.

Tex., Baird.—(Road).—\$100,000 bonds Road Dist. No. 1, Callahan County, are voted. Address County Commrs.

Tex., Beeville.—(Road).—Election has not yet been ordered to vote on \$200,000 of Bee County bonds. F. J. Malone is Clerk County Court.

Tex., Benjamin.—(School).—\$25,000 of Vero Dist., Knox County, bonds are voted. Address County Commrs.

Tex., El Paso.—(Street).—\$100,000 of 4½ per cent. bonds have been purchased at par and interest by contractors. Address The Mayor.

Tex., Gonzales.—(Road).—The \$200,000 of bonds Road District No. 1, Gonzales County, to be voted on April 6 will bear interest not to exceed 5½ per cent. and run not longer than 30 years. J. C. Romberg is County Judge.

Tex., New Braunfels.—(Road Warrants).—\$15,000 of 6 per cent. 1-14-year Comal County warrants issued for improving Government Post road between Austin and San Antonio, have been purchased by J. L. Arlitt, Austin, Tex.

Tex., Roby.—(Road).—\$100,000 of 5½ per cent. \$500 denomination bonds Special Road Dist. No. 1, Fisher County, have been purchased by Powell, Gerard & Co., Chicago, at \$96,000.

Tex., Rockport.—(Highway).—\$30,000 Jefferson Davis Memorial Highway bonds have been voted by Aransas County. Address County Commrs.

Tex., San Antonio.—(Sewer, Bridge, Street).—Election is soon to be held to vote on \$35,000

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MANUFACTURERS' AGENTS

sanitary and storm sewer, \$150,000 bridge and \$500,000 street improvement and fire apparatus bonds. Address The Mayor.

Va., Bristol—(Refunding).—Ordinance has been introduced in the City Council authorizing an issue of \$32,000 of refunding bonds. Address The Mayor.

Va., Chilhowie—(Fire Department).—Before the \$10,000 of bonds authorized by the Legislature can be issued an election will have to be held. Jas. D. Tate is Mayor.

Va., Roanoke—(Fire Department).—All bids received March 26 for \$35,000 of 4½ per cent. 30-year \$1000 denomination bonds,

offered on that date, were rejected. P. H. Tucker is City Clerk.

Va., Portsmouth—(School).—City Council has passed an ordinance authorizing issue of \$150,000 of bonds. Address The Mayor.

Va., Portsmouth—(Road).—Norfolk County is authorized by the Legislature to issue \$1,000,000 of 6 per cent. 20-30-year road and bridge bonds; denomination not less than \$100 nor more than \$100,000. Thomas Black is Chrmn. Finance Commrs., Board of Supervisors.

W. Va., Williamson—(County Bonds).—Part of an authorized issue of \$1,000,000 of

Mingo County bonds have been sold to the State of West Virginia, and it is probable the balance will also be disposed of in the same way.

FINANCIAL NOTES

The Twenty-fifth Annual Convention of the Florida Bankers' Association will be held at Tampa on April 5 and 6. G. R. De Saussure of Jacksonville is Secy.-Treas. of the association.

It is announced that the Irving National Bank of New York and the London Provincial & Southwestern Bank of London have entered into a close reciprocal working arrangement for securing better and more highly specialized handling of Anglo-American business. Thus each will be the principal correspondent and representative of the other in its respective country, and the New York bank will have an English department and the London bank will have an American department.

INDUSTRIAL NEWS OF INTEREST

Architects' Firm Change.

A letter to the Manufacturers Record says that the Huseman Company of Oklahoma City, Okla., has succeeded the firm of Bramblet & Huseman, architects, there.

Change of Name.

On April 1 the Frank H. Seely, Jr., Company succeeded to the Pennsylvania Supply & Equipment Co. at 421 Widener Bldg., Philadelphia, Pa., in the railroad, mine, mill contractors and building supply business.

Branch Manager Appointed.

The Asbestos Protected Metal Co. of Pittsburgh announces the appointment of Herbert Longstaff as manager of its St. Louis office, located in the Boatmen's Bank Bldg. The telephone number is Belt Olive 4169.

Branch Office in New Location.

The office of the H. W. Johns-Manville Company at Memphis, Tenn., has removed from its old location to 804-5 Exchange Bldg., corner of Madison Ave. and Second St. The headquarters of this well-known company are in New York City. This change at Memphis took place on March 31.

Takes a New Position.

A. W. Ferguson, manager of the Service Department of "Concrete," a concrete construction magazine published at Detroit, has resigned to become sales and advertising manager of the Blystone Mfg. Co., Cambridge Springs, Pa., maker of the Blystone machinery for mixing foundry sands, concrete, mortar and plaster. He will assume his new responsibilities on May 1.

Change of Address.

The Pittsburgh Testing Laboratory has turned over its building and equipment at Seventh and Bedford Aves., Pittsburgh, Pa., to the United States Government for the duration of the war, and therefore, from April 1 until about June 15 its offices will be in the B. F. Jones Law Bldg., Fourth Ave. and Ross St. After June 15 the offices and laboratories will be located at 612 to 620 Grant St., the building being remodeled and fully equipped for their special needs. Clients will be taken care of as usual.

Sales Agents for Century Steel.

The Aborn Steel Co., Inc., of 22 Clarke St., New York city; 269 Drexel Bldg., Philadelphia, Pa., and 133 Andrews St., Rochester, N. Y., has been appointed sales agent for the Century Steel Co. of America, Inc., manufacturer of crucible steels at Poughkeepsie, N. Y. The Century Steel Co. has, therefore, given up its New York office and warehouse, but the Aborn Steel Co. will carry the Century products in stock to serve customers and to take care of increasing business.

Installing Koppers Coke Ovens.

The Indiana Coke & Gas Co., Terre Haute, Ind., will enlarge its present by-product coke plant. It has contracted with the H. Koppers Company, Pittsburgh, Pa., for the erection of 15 Koppers ovens with the necessary additions and changes in the present equipment, which consists of a battery of 30 ovens. The improvement plans are so that another battery of 15 ovens can readily be installed. With the addition of the 15 Koppers ovens now under contract, the plant will have an approximate capacity of 800 tons of coal per day. The surplus gas from this plant is distributed in the city for domestic purposes and the coke produced is sold for both domestic and metallurgical uses.

Electric Hoist Makers Unite.

The Electric Hoist Manufacturers Association has been organized, and it is expected to be mutually helpful to all makers of electric hoists. It has offered the services of its member companies to the Federal Government for meeting the extraordinary demands for their products, and it will co-operate with

the War Industries Board. Now that the experimental stages of electric hoist manufacture are believed to be past and acceptable designs developed, it has been considered wise to co-ordinate the aggregate results of experience and make generally available the best that is in design and practice. The members of the Association are Brown Hoisting Machinery Co., Detroit Hoist & Machine Co., Euclid Crane & Hoist Co., Franklin-Moore Co., Link-Belt Co., Roeper Crane & Hoist Works, Shepard Electric Crane & Hoist Co., Sprague Electric Works and Yale & Towne Mfg. Co. The officers are F. A. Hatch, chairman; F. W. Hall, vice-chairman; C. W. Heaver, secretary-treasurer, who are from the Shepard Electric Crane & Hoist Co. The Sprague Electric Works and the Yale & Towne Mfg. Co., respectively.

TRADE LITERATURE

Wire Goods Catalogue.

The Spring supplement of the Fred J. Meyers Manufacturing Co., Hamilton, O., is a seasonable and interesting publication covering the company's extensive line of wire goods of all kinds. The contents relate to sifters, sieves, riddles and screens, rat and mouse traps, fly traps and dish covers, bird cages, wire baskets, wire spout protectors, muzzles for horses, cattle and dogs, steel casting brushes, several other types of brushes, wire waste baskets, paper trays, etc., wire and iron lawn furniture, screen door grilles, window guards, railings, sidewalk fixtures, wire signs, safety guards of wire, iron folding gates and many other articles of metal. Conductors' punches are also manufactured. The book is profusely and excellently illustrated.

Valuable Westinghouse Booklet.

A high-grade, finely illustrated, copyrighted booklet, 6x9 inches, has been issued by the Westinghouse Traction Brake Co., Industrial Department, Pittsburgh, Pa., describing in detail the company's complete line of motor-driven compressors—both stationary and portable installations—ranging in capacities from 11 to 110 cubic feet. Compressed-air accessories for doing almost every possible work are included. All users of compressed-air tools will find many new features and valuable labor-saving help in this publication, which is No. 9035. Tables of dimensions, capacities and other data are given, in addition to the extensive fund of related information in the book. Pictures and diagrams are finely executed.

About Building Industrial Plants.

In discussing the subject, "Industrial Plant Construction," the John W. Cowper Company, Inc., engineers-contractors, Fidelity Bldg., Buffalo, N. Y., with New York City office at 165 Broadway, in a new bulletin says that the advantages to be gained by standardized construction may be summarized as follows: "The elimination of the cost of preparing general plans, working details and specifications; the economical use of the materials of construction, due to the fact that the structural features and bay spacing have been chosen to eliminate waste; the elimination of untried designs and construction; rapidity of construction, the time required for the preparation of plans and details is saved. Work can be begun at once and rushed to completion; saving in first cost due to standardization, the owner obtaining a better building for a smaller expenditure of worry, time and money than is ordinarily secured by special designs." Moreover, the company does not confine itself to standard buildings, but it also designs and constructs every year many buildings and plants for special purposes which cannot be standardized. Complete descriptions of its buildings with illustrations are presented in the bulletin, which is really a good-sized booklet. Tables of details of construction, heating, etc., are given.

**Fidelity
and
Burglary
Insurance**



**Surety
Bonds**

Fidelity & Deposit Co. of Maryland

BALTIMORE

EDWIN WARFIELD, President

Wm. F. Bockmiller, Pres.

John G. Hullet, Secy.

BALTIMORE OFFICE SUPPLY CO., Inc.

641 COLUMBIA AVE., BALTIMORE, MD.

Manufacturers of

Steel Die Embossed Stationery

Write for Samples and Prices

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PROOF**

YORK SAFE & LOCK COMPANY
YORK, PA. BALTIMORE, MD.

MURPHY'S HOTEL

Richmond, Va.

Virginia's largest and Richmond's most centrally located Hotel.

Every car line in the City passes Murphy's.

Rooms single and en suite.

Railroad tickets sold and baggage checked at Hotel.

Main Hotel and Grace Street Annex fireproof.

Rates \$1.00 and Up

JAMES T. DISNEY, Manager

Strayer's Business College, Inc.

**Charles and Fayette Sts.
Baltimore, Md.**

**Ninth and F Sts. N. W.
Washington, D. C.**

Fully accredited by the National Association of Accredited Commercial Schools. Teaching latest methods in Shorthand, Typewriting and Commercial Subjects. Departments headed by Degree Teachers.

The Government needs TEN THOUSAND STENOGRAPHERS, and a representative of the Civil Service Commission visited Strayer's Business College recently and urged us to provide as many as possible.

This is YOUR opportunity. Classes now open. Day and Night School all the year. Enroll at once. Write us today.



The Dutee, Wilcox, Flint service plant, Providence, R. I., covered with a Barrett Specification Roof.
Roofers: J. W. Moore Co., U. S. Concrete & Roofing Co., Providence, R. I., J. T. Maguire Co., Pawtucket, R. I.

On FORD Service Stations

Most of the large flat roofs in the United States carry the Barrett Specification type of roof.

But for covering smaller buildings with a roof-area of 5,000 feet or more, Barrett Specification Roofs are equally satisfactory and economical.

These are the reasons for their wide popularity:

First—Their cost per year of service is lower than any other permanent roof-covering.

Second—They cost nothing to maintain.

Third—They carry a Surety Bond Guaranty for twenty years—something that no other manufacturer has ever offered.

Fourth—They take the base rate of fire insurance.

Fifth—Experience proves that they will last much longer than twenty years because they contain *more waterproofing material* than any other roofing, and, further, because they are constructed under the supervision of our inspectors.

One familiar class of structures in this country are the Ford Service Stations. There are hundreds of them, some large, but most of them of moderate size. Barrett Specification Roofs cover a large number of these.

Illustrating how the owners feel, we quote from a letter from the Ford Service Station at Providence, R. I.:

"We wish to say that your Barrett Specification Roofing that you have placed on our Service Station at Allens Avenue has given us entire satisfaction."

"In these days it is a novelty to find a roofing material of superior stock and workmanship, and we are very glad to compliment you on this work."

Before you order a roof for any permanent building be sure to look into the merits and cost of Barrett Specification Roofs. If you do you will have no other kind.

A copy of The Barrett 20-Year Specification, with roofing diagrams, sent free on request.

The **Barrett** Company

New York	Chicago	Philadelphia	Boston	St. Louis	Cleveland	Cincinnati	Pittsburgh
Detroit	Birmingham	Kansas City	Minneapolis	Nashville	Salt Lake City	Seattle	Peoria
THE BARRETT COMPANY, LIMITED							
Montreal	Toronto	Winnipeg	Vancouver	St. John, N. B.	Halifax, N. S.	Sydney, N. S.	

We now guarantee Barrett Specification Roofs to last for twenty years without cost for maintenance. No charge for the guarantee, for it gives us a chance to protect the good repute of these roofs. The guarantee is a surety bond issued by one of the largest surety companies in America, the United States Fidelity and Guaranty Company of Baltimore. It is offered on all roofs of fifty squares and over in all towns of 25,000 population and more, and in smaller places also where our Inspection Service is available.



This Badge of Honor to be given every U. S. Shipyard Volunteer

Talk It Over With Your Men

THE outcome of the war depends upon SHIPS!

When we can build ships faster than the U-boats can sink them, the submarine peril will vanish—and America's might will win the war.

This is why the Government's call to enroll 250,000 skilled workers for the shipyards is so urgent; so vital.

Every employer is asked to help.

Will YOU make some sacrifice, so that the Government can get the skilled men required? Talk it over with your employees; explain the great need to them, and urge some of them to enroll in the United States Shipyard Volunteers.

They will be paid good wages; millions are being spent by the Government to give them good homes; they will work at trades for which their experience has fitted them; they will come back to you better, faster workers. Every Volunteer will receive a badge and a certificate, showing that he is doing his bit for America.

You can perform no greater patriotic service to your country than by helping to build ships. Greater than the need for money, is the need for men—skilled men.

Will you help?

Mail the coupon today—get all the facts—and talk it over with your men.

U. S. Shipyard Volunteers

**Public Service Reserve
U. S. Shipping Board
U. S. Department of Labor**

—For Further Information Mail This Coupon—

EDWARD N. HURLEY, Chairman
U. S. Shipping Board, Washington, D. C.

Please tell me how I can help the Government enroll 250,000 Shipyard Volunteers.

Name.....

Address.....

Firm Name.....



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PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

More Southern Proposal Advertising Is Printed In The Manufacturers Record Than In Any Other Paper

Bids close April 22, 1918.

PROPOSALS FOR MANGANESE LINK
Pins, Electric Steel Furnace, Electric Drill, Copper Magnet Wire, Split Tee Connectors, Storage Batteries, Rubber Tires, Paper, Bristol Board and Crossed Piles. Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10:30 o'clock A. M. April 22, 1918, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and information relating to this circular (1211) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 606 Common Street, New Orleans, La., and Fort Mason, San Francisco, Cal.; also from the United States Engineer offices in the principal cities throughout the United States. A. L. FLINT, General Purchasing Officer.

Bids close April 30, 1918.

PROPOSALS FOR STRUCTURAL STEEL
and accessory parts for shed on Pier No. 6, Atlantic Terminal. Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10:30 o'clock A. M. April 30, 1918, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and information relating to this circular (1212) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 606 Common Street, New Orleans, La., and Fort Mason, San Francisco, Cal.; also from the United States Engineer offices in the principal cities throughout the United States. A. L. FLINT, General Purchasing Officer.

TREASURY DEPARTMENT, Bureau of Engraving and Printing, Washington, D. C., April 1, 1918. Sealed proposals are invited to furnish Postage Stamp Paper and Internal Revenue Paper, Check Paper, Castings, and for the sale of Waste Paper, Pulp, Shredded Trimmings, Ink Scrapings, Scrap Metal and for the Cleaning of Windows during the fiscal year beginning July 1, 1918. The right is reserved to reject any or all bids or parts of bids. Samples of Check Paper must be received at the Bureau of Engraving and Printing not later than 2 P. M. Monday, May 6, 1918. Blank forms, with specifications for proposals, giving dates on which the bids for the several schedules will be opened and further information, will be furnished on application to JAMES L. WILMETH, Director.

Bids close April 20, 1918.

DEPARTMENT OF THE INTERIOR, Washington, March 20, 1918. Sealed proposals in duplicate will be received at the Department until 2 o'clock P. M. Saturday, April 20, 1918, and then opened, for the erection and completion of semi-permanent ward buildings, dining hall and kitchen for St. Elizabeth's Hospital, Washington, D. C., in accordance with plans and specifications, copies of which may be obtained from the Chief Clerk of the Department. The right is reserved to reject any or all bids, to waive technical defects, or to accept one part and reject the other, as the interests of the Government may require. Applicants for plans will be required to deposit with the Department a certified check for \$5, payable to the order of the Secretary of the Interior, as a guaranty that the plans will be returned in good condition. Proposals must be marked "Proposal for Erection of Semi-permanent Buildings at St. Elizabeth's Hospital" and be addressed to the Secretary of the Interior, Washington, D. C. S. G. HOPKINS, Assistant Secretary.

Bids close May 1, 1918.

\$30,000 6% Bonds

Pursuant to an order of the Road Commissioners of Grove Township, Harnett County, passed at their regular meeting held at the polling place in Coats, N. C., in Grove Township, Harnett County, on the 23d day of March, 1918, and under authority of Chapter 47 of the Public Local Laws of the General Assembly of 1913, the Road Commissioners of Grove Township, Harnett County, will sell at public auction for cash in front of the Bank of Coats, in Coats, N. C., on Wednesday, May 1, 1918, at 12 o'clock M., \$30,000 6% 30-year Grove Township Road Bonds, said bonds to be in denominations of \$500 each, bearing interest at the rate of 6 per cent, interest coupons payable semi-annually on May 1 and November 1 of each year; bonds to be dated May 1, 1918, and to be due and payable on the 1st day of May, 1938; said bonds being numbered from one to sixty, both inclusive, and being the only bonds or liability of said township. The bids shall be accompanied with \$500 in cash or certified check to guarantee the bona fide of bid. Any information desired can be had by application to the undersigned attorney.

By order of the Road Commissioners of Grove Township, Harnett County, North Carolina, this 25th day of March, 1918.
J. R. BAGGETT,
Attorney for Road Commissioners of Grove Township, Harnett County, Lillington, N. C.

PROPOSAL ADVERTISING INFORMATION

RATE: 25 cents per line per insertion.

PUBLICATION DAY: Thursday.

FORMS CLOSE 5 P. M. Tuesday. Copy received later cannot be published until issue of following week.

DAY LETTER: When too late to send copy by mail to reach us by 5 P. M. Tuesday, forward by day letter.

THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:

Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies—25 cents per line per insertion.

\$55,000 6% Bonds

Notice is hereby given that the Board of Supervisors of Clay County, Mississippi, will offer for sale on the 15th day of March, 1918, at the Court House in West Point, \$55,000 District No. 2 Road Bonds, bearing 6 per cent, payable semi-annually.

Said Board of Supervisors will offer for sale on the 1st day of April, 1918, at the Court House in West Point, \$40,000 County Bonds, bearing 6 per cent, payable semi-annually.

All bids to be filed with the Clerk of said Board by 2 o'clock P. M. of said dates. A certified check for \$500 must accompany each bid.

L. J. HOWARD, Clerk.

Bids close April 9, 1918.

Notice to Bond Buyers

Notice is hereby given that the Board of Mayor and Selectmen of the City of West Point, Mississippi, will offer for sale on the 9th day of April, 1918, at the City Hall in said city, \$15,000 Bonds, bearing not exceeding 6 per cent, interest, payable in five equal annual payments.

Said Board will also offer at the same time \$30,000 Bonds, bearing not exceeding 6 per cent, interest, and will receive bids therefor on two propositions—(a) payable in ten equal annual payments, (b) payable in twenty equal annual installments.

All bids to be filed with the Clerk of said city by 7 o'clock P. M. on said date. A certified check for \$500 must accompany each bid.

Witness my signature, this the 15th day of March, 1918.

J. L. YOUNG,
City Clerk.

Bids close April 15, 1918.

\$330,000 6% Bonds

Notice is hereby given that the Board of County Commissioners of De Soto County, Florida, will receive sealed bids at the Clerk's Office in the Court House at Arcadia, Florida, until 12 o'clock noon on the 15th day of April, A. D. 1918, for the purchase of bonds of Special Road and Bridge District Number Four of De Soto County, Florida, authorized to be issued in the sum of \$330,000 by an election held in the said Special Road and Bridge District on March 7, A. D. 1918, for the purpose of constructing hard-surfaced roads and concrete bridges in said District.

The entire bond issue of \$330,000, or any part thereof, is offered for sale, the same being issued in denominations of \$500 each, being dated May 10, A. D. 1918, bearing interest at 6 per cent, per annum, payable semi-annually, with interest coupons attached, both principal and interest payable at Arcadia, Florida, or at a banking house in the City of New York, and maturing serially as follows, to wit: \$12,000 due and payable on May 10, A. D. 1924, and \$12,000 due and payable on May 10 of the years 1925, 1926, 1927 and 1928, respectively; \$15,500 due and payable on May 10, 1929, and on each successive year thereafter until and including the year 1948.

The said Board of County Commissioners reserves the right to sell the whole or any part of said bond issue and to reject any and all bids. Each bidder is required to furnish a certified check, payable to Board of County Commissioners for the use of said District, in the sum of \$1000 as evidence of good faith. The check of the successful bidder will be applied on purchase or forfeited if the bidder shall fail to comply with his bid. Each bidder will state the time when he will comply with his bid.

This notice is given by order of the Board of County Commissioners of De Soto County, Florida, and is dated the 23d day of March, A. D. 1918.

A. L. DURRANCE,
Clerk of said Board.
B. VANCE, D. C.

Bids close April 15, 1918.

State Highway Construction

THE STATE OF DELAWARE.
STATE HIGHWAY DEPARTMENT.

Sealed proposals will be received by the State Highway Department at its offices in Dover, Delaware, until two (2) o'clock P. M. April 15, 1918, and at that place and time publicly opened and tabulated, for the construction of the State Highways in the State of Delaware, involving the following contracts:

CONTRACT No. 1: Kent County.

4.06 miles cement concrete roadway.

CONTRACT No. 2: Kent County.

4.90 miles cement concrete roadway.

CONTRACT No. 3: New Castle County.

2.46 miles vitrified brick roadway with concrete foundation.

CONTRACT No. 4: New Castle County.

3.75 miles vitrified brick roadway with concrete foundation.

CONTRACT No. 5: Sussex County.

6.06 miles cement concrete roadway.

CONTRACT No. 6: Sussex County.

4.90 miles cement concrete roadway.

CONTRACT No. 7: Sussex County.

6.61 miles cement concrete roadway.

CONTRACT No. 8: Sussex County.

6.36 miles cement concrete roadway.

Performance of contract shall commence within ten (10) days after execution of the contract and be completed on or before December 31, 1918.

Monthly payments will be made for (90) ninety per cent, of the work completed each month.

Bidders must submit proposals upon forms provided by the Department.

Each proposal must be accompanied by a surety bond, certified check, or money to the amount of ten (10) per centum of the amount of the proposal.

The envelope of the proposal must be marked:

"Proposal for the Construction of a State Highway under Contract No. _____"

The contract will be awarded or rejected within twenty (20) days from the date of opening proposals.

The right is reserved to reject any or all bids.

Plans and specifications can be obtained from the Department at Dover, Delaware, by depositing (\$10) ten dollars, which will be refunded when the plans and specifications are returned in good condition.

Plans may be seen and specifications and detailed information obtained from:

CHAS. M. UPHAM, Chief Engineer,
State Highway Department,
at Dover, Delaware.

Bids close April 13, 1918.

Paving and Sewers

The Council of the City of St. Albans, West Virginia, will receive bids until 2 o'clock P. M. April 13, 1918, for the following:

Approximately 13,200 sq. yds. paving and 6000 cu. yds. grading.

About 13,000 ft. terra-cotta and brick sanitary sewer.

About 100,000 sq. ft. sidewalk and 2000 cu. yds. excavation.

See plans and specifications of above work in office of City Manager.

Each bid for street paving must be accompanied by certified check for the sum of \$1000. Each bid for the sidewalk or for the sewerage must be accompanied by a check for \$500.

The Council reserves the right to reject any or all bids.

L. A. EDWARDS, City Clerk.
J. M. OLIVER, City Engineer.

Bids close April 11, 1918.

Street Improvements

The Town of Lake Alfred, Florida, will let street improvement on April 11, 1918, bids closing at 1:30 o'clock P. M.

About 15,000 square yards of asphalt concrete paving, 65,000 sq. yards clay paving and about 45,000 cu. yards earth excavation, together with concrete curb and gutter work.

Engineer in charge, J. W. Turner, Lakeland, Fla.
Town Clerk, J. F. Jester, Lake Alfred, Fla.

Hospital Building

Greenville, S. C.

The Board of Governors of Greenville City Hospital invite proposals for the construction of the new Hospital Building to be erected at Greenville, S. C.

The building has a capacity of approximately forty patients, and has three stories and a basement.

It is to be of steel, reinforced concrete and the fireproof construction. Exterior of stone and brick and terra-cotta.

Drawings and specifications may be seen at the office of Eugene C. Wachendorf, Architect, Empire Building, Atlanta, Ga., and at the office of H. Olin Jones, Architect, Jones & Bates Building, Greenville, S. C.

General contractors may secure copies of drawings and specifications upon application to H. Olin Jones, Architect, accompanied by a check for \$20, \$10 of which will be refunded upon the return of drawings and specifications.

Sealed proposals accompanied by certified check in the sum of \$3000, payable to the Chairman of the Board of Governors of Greenville City Hospital, will be received up to 3 o'clock Wednesday, May 1, 1918.

THE BOARD OF GOVERNORS.
Alvin H. Dean, Chairman.
M. F. Ansel, Secretary.
Greenville, S. C., March 19, 1918.

Bids close April 30, 1918.

Building Construction and Bond Sale

Sealed proposals will be received at the office of the undersigned in the City of Johnson City, Tennessee, until 7 P. M. on the 30th day of April, 1918, for the construction of a Court and Market House, for new school building and an annex to two other school buildings. Plans and specifications can be had upon application to C. G. Mitchell or D. R. Beeson, Architects, Johnson City, Tennessee.

Bids are asked for, payable in either cash or bonds at the option of the city.

A certified check for an amount equal to 10 per cent, of the bid must accompany each bid.

Sealed proposals will be received, as per above date, for the purchase from the city of \$75,000 Court House Bonds, 5 1/2%, 30 years; \$50,000 School Bonds, 5s, 5 to 40 years.

Certified check for an amount equal to 5 per cent, of bid must accompany each bid.

The right is reserved to reject any and all bids or any part of any bid.

Bids will be opened at a regular meeting of the Board of Mayor and Aldermen to be held April 30, 1918, at 7:30 P. M.

W. O. DYER,
City Manager.

Attest:
R. C. WARREN, Recorder.

Bids close May 7, 1918.

Bridge

Lake Worth, Fla.

Sealed bids will be received by the Board of County Commissioners of Palm Beach County, Florida, at the Clerk's office at West Palm Beach, Florida, up to 12 o'clock noon Tuesday, May 7, 1918, for the construction complete of a bridge across Lake Worth at Lake Worth, Fla., said bridge to consist of a 150-ft. steel swing draw, or a Scherzer rolling-lift steel span, with clear opening of 60 ft. All according to plans and specifications for said work on file in the office of the County Engineer, West Palm Beach, Florida.

Each bid must be accompanied with a certified check, payable to the Board of County Commissioners, in an amount equal to 2 per cent, of amount of bid as a guarantee that the bidder will, if awarded the contract, enter into contract promptly for said work and complete the same within the time limit named in his contract.

Each bidder will state when he will be ready to commence said work and the time required by him to complete the same.

Plans and specifications will be forwarded to any address on receipt of request made to R. F. Goodman, County Engineer, accompanied by remittance of \$15, which remittance is to be refunded on the return of said plans and specifications to the Board of County Commissioners.

The Board reserves the right to reject any or all bids.

By order of the Board of County Commissioners.

L. TREVETTE LOCKWOOD,
Chairman.

GEO. O. BUTLER,
Clerk.

(Seal County Commissioners.)

Bids close April 8, 1918.

Drainage Canals

Sealed proposals will be received by the undersigned at Georgetown, S. C., until 12 o'clock noon April 8, 1918, for the construction of approximately eleven miles or drainage canals. Plans and specifications will be furnished by McCrady Bros. & Cheves, Civil Engineers, Charleston, S. C.

GEORGETOWN FARM LAND & HOMESSEKERS' CO.

Classified Opportunities

MINERAL AND TIMBER LANDS WATER POWERS MISCELLANEOUS PROPERTIES

FOR SALE? Farm, timber land, mineral property or any other? We can help you get in touch with possible purchasers by an advertisement in these columns. For rates see head of this department.

TRIPOLITE DEPOSIT

WHO WANTS TRIPOLITE?

Large deposit near R. R. Can furnish any quantity desired. Sample sent on request. Address Vin Truman, 2303 Oklahoma Ave., Muskogee, Okla.

MANGANESE ORE LANDS

FOR SALE.

200 acres fine manganese property. United Minerals Company, Roanoke, Va.

760 ACRES MANGANESE ORE LANDS for sale; engineer's estimate, 800,000 tons; railroad one mile; now mining with pick and shovel; analysis and records available. Address Deak Aydelott, Tullahoma, Tenn.

MANGANESE ORE LANDS WANTED

IF YOU have high-grade manganese ore in the Southern Appalachian section, and are willing to let the operator make part of the money, write full particulars to No. 5074, care Manufacturers Record, Balto., Md.

MICA MINE

FOR SALE—MICA! MICA! MICA!—Wanted to get in touch with dealers or anyone interested in a high-grade mica mine. Millions of tons available of the highest grade. Detailed information furnished. Address A. F. Deelman, Clayton, Ga.

COAL LANDS AND MINES

FOR SALE—10,000 acres coal land, Rhea County, Tennessee, near C. N. O. & T. P. Railway, 32 miles north of Chattanooga. Three workable veins. Drift mining. Part or entire acreage will be sold. Estate must be closed. Address Bennett, Westfall & Bennett, Attorneys-at-Law, 8 East Long Street, Columbus, Ohio.

FOR SALE—Going coal mine in Ohio. Coal lands in West Virginia, Kentucky and Alabama. H. C. Van Aken, 309 Post Building, Battle Creek, Mich.

FOR SALE OR LEASE—1600 acres Elkhorn coal, 4 to 6 feet thick, on Rockhouse and Millstone Creeks, Letcher Co., Ky. 800 acres on Beaver Creek; coal 7 feet thick. J. H. Frazier, Whitesburg, Ky.

FIRE-CLAY LAND

FOR SALE—Large tract of fire-clay land in Southern Pennsylvania. Well-known vein, hard and soft clay; best in State. Good railroad facilities. Address P. O. Box 584, Philadelphia, Pa.

COAL AND IRON ORE LAND

FOR SALE—6000 acres of coal and iron ore land in Rome—Chattanooga District. G. W. M. Tatum, Trenton, Ga.

COAL AND TIMBER LAND

50,000 ACRES Tennessee coal and timber lands, located in Lincoln, Franklin and Coffee counties; must sell to settle partnership. Price \$2.50 per acre; \$15,000 cash, balance on ten equal annual payments. Would accept exchange property to the amount of one-half. T. N. Figuers, Jr., Columbia, Tenn.

LOANS ON TIMBER LANDS

LOANS ON TIMBER LANDS AND OPERATIONS.

F. R. Meier,

165 Broadway, New York.

TIMBER LAND

FOR SALE—Land and timber in fee, 12,140 acres, Henderson Co., N. C., 6 miles from Sou. Ry. Lately cruised by South's best timber cruiser and shown to contain following: White pine, 8 million. Yellow pine, 5 million. Yellow poplar, 11 million. Oak, all varieties, 22 million. Chestnut, 14 million. Basswood and cucumber, 2½ million. Hickory, 1½ million. Hemlock, 8 million. All original growth, large size, good logging. Price \$180,000. Blueprint and other information on application. In addition to above timber, there are 75,000 cords chestnut wood and 22,000 cords oak and hemlock bark. A. B. Chandler, Walterboro, S. C.

FOR SALE—One hundred thousand acres of timber land in Manatee County, Florida. All long-leaf yellow pine, estimated to cut four thousand feet per acre. This land is in the artemesian well district, high and dry. Specially adapted to citrus fruit and trucking. Climate ideal. Located near the East & West Coast Railroad. Will sell all or any portion thereof at ten dollars and fifty cents (\$10.50) per acre. Liberal terms. Apply or address The Myakka Co., Charleston, S. C.

FOR SALE—1350 acres virgin Georgia timber land. Will produce 10,000 feet per acre. 65% oak. Price and terms reasonable. E. A. Robertson, Box 373, Petersburg, Va.

RATES AND CONDITIONS

Rate 25 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 23c. per line; 300 lines, 21c. per line; 500 lines or more, 20c. per line.

TIMBER LAND

4000 ACRES long-leaf yellow pine, with some cypress, in phosphate zone, on railroad in Levy County, Florida. One-third not turpentine; none cut over; will cut about fifteen million feet. Land adapted to farming or stock raising. Price timber, \$13.00, or fee, \$15.50 per acre. Address Timber Owner, Box 7, Atlanta, Ga.

TIMBER

15,000,000 FEET VIRGIN TIMBER in Caroline County, Va. As fine as grows. Will cut anything. Two-thirds hardwood, mostly white oak, hickory and poplar, balance yellow pine. Good level logging land. Price \$80,000.

50,000,000 feet short-leaf pine, Eastern North Carolina. Price \$200,000. Up-to-date land mill in Eastern North Carolina; 60,000,000 feet standing timber behind it. Making good money. Price and terms on application. Green & Redd, Ninth and Franklin Sts., Richmond, Va.

FOR SALE—7000 acres virgin timber stumpage in one boundary. Will cut 4000 feet merchantable lumber to acre. Composed of white and red oak, ash, buckeye, bass, beech, birch, cherry, chestnut, gum, hemlock, maple and poplar. Will cut 15 cords acid wood and 5 cords pulp and tan bark per acre. Will sell all at \$4 per thousand standing stumpage. Must take all from one to seven feet in diameter. Terms, one-fourth cash by May 1st, 1918; rest 1, 2, 3 years at 6%, with 12 years to move timber. Location, headwaters of Buck Creek, Clay County, North Carolina. Can all be cut by water-power. Twelve miles from railroad, with easy down grade. No exclusive option without cash deposit. Address S. A. Jones, Waynesville, N. C.

FOR SALE—Fifty million feet of fine South Carolina timber, consisting of thirty-nine million feet red gum, five million oak, three million cypress, three million short-leaf pine. This timber is very large and of fine quality; easily logged at any time of the year. Price reasonable. Accessible to railroads. Will bear closest investigation. Address No. 5033, care Manufacturers Record.

FOR SALE—Virgin timber on 600 acres of land in Western North Carolina. If interested, address H. W. Horton, North Wilkesboro, N. C.

FARM AND TIMBER LANDS

70,000 ACRES of farm and timber land for sale in tracts of 5000 acres or more, located below the front line on a new railroad in the most fertile section in South Florida; an ideal farm or colonization opportunity; you deal direct with the owner and your warranted deed is backed by a million of dollars. Write Thomas Camp, 37 Norcross Street, Atlanta, Ga.

FINE FARM and timber tract: 1300 acres, highly improved farm; splendid buildings, fine equipment. Crops, stock and 8,000,000 feet fine timber on R. R. for sale at a bargain. W. A. Davis, 123 N. 8th St., Richmond, Va.

FOR SALE.

2000 acres, Oconee County, South Carolina, 1600 acres suitable for cultivation; over three million feet of timber; some minerals. Closing up an estate. Price in fee, \$35,000. ROGER A. JENNINGS & COMPANY, GREENSBORO, N. C.

WE OWN LARGE TRACTS OF TIMBER LANDS, cut-over lands and colonizing lands. If interested, address H. H. Wefel, Jr., & Co., Mobile, Alabama

LAND APPRAISALS

BEFORE BUYING LAND secure an authoritative report on its value. Our reports cover the South and are made by competent and experienced appraisers. Correspondence invited. Geo. B. Shaeffer & Co., Box 184, Memphis, Tenn.

FRUIT, FARM AND TRUCK LANDS

THESE COLUMNS ARE CLOSELY READ BY PEOPLE for information of all kinds about Southern properties of every description. If you have a property of any kind that you want to dispose of, try an advertisement in these columns. Others have to their advantage. For rates see head of department.

BUSINESS OPPORTUNITIES

NATURAL GAS at city of 200,000 supplied only with artificial gas; excellent oil prospects; will not lease; consider exchanges up to \$225,000. Tom G. Oliver, San Marcos, Texas.

WE WANT to get in touch with responsible real estate, insurance, bankers, brokers, financial and investment agents who will aid us in handling our clients quickly and intelligently in your section. Write us your facilities for handling business. Help us in perfecting our service system and you help yourself. Roger A. Jennings & Co., Financial and Investment Agents, Greensboro, N. C.

I HAVE a very fine line proposition, and would like to get in touch with party experienced in the lime business who can invest some capital and take active charge of the plant. Location on railroad near best manufacturing city in the South. Stone in unlimited quantity, assaying nearly 100 per cent. pure lime. R. T. Fant, Bank of Commerce Bldg., Memphis, Tenn.

CAPITAL WANTED.—An investment of \$30,000 will help win the war and purchase a large interest in an operating coal mine that pays a large dividend under present Government prices. Responsible parties only address No. 5075, care Manufacturers Record, Balto., Md.

TO LEASE for manufacturing purposes, brick mill, warehouse, 150-horse-power boilers, engines. E. W. Menefee, Raymond, Ga.

WE HAVE a small tool for opening seams and calking boats. It will be in great demand soon as demonstrated to shipbuilders. We want someone to take over, manufacture and market the same on a royalty basis. Courter & Waite, Box 66, Palmetto, Fla.

TURN YOUR FARM, town lots, etc., into cash. Any place. Auction or private high-pressure selling. National Realty Sales Co., Charleston, W. Va.

FOR SALE—Saw mill, grist mill, cotton gin and farm. Small investment. Good living. Address H. L. Lyons, Box 813, Laurel, Mississippi.

WILL PURCHASE electric light and water-works properties having established earnings and located in substantial growing communities. Give particulars concerning present annual gross earnings and franchise conditions. Address Treasurer, P. O. Box 1136, Providence, R. I.

NO ICE THIS YEAR.—I control a device that will put ice in every home where there is electricity at less than 5 cents a day; will show you enormous possibilities with small investment for organization expense. Full information on request. Fred W. Wolf, 327 N. Wells St., Dept. 92, Chicago, Ill.

I WANT Angora goats or sheep to run on shares on my ranch; foothill range; running water; brush and grass. H. L. McCune, 702-3 Two Republic Bldg., El Paso, Texas.

SUBDIVISION salesmen or firm which has sales force organized wanted to handle 2000-lot proposition located short distance from great new shipyards of U. S. Steel and four other shipbuilding concerns; subdivision has more attractive selling points than any other ever offered, as 300 houses are given away and rentals guaranteed by new factories. This is an industrial subdivision under which additional factories are located on subdivision. Give full particulars of your experience, sales force and references. P. O. Box 1067, Mobile, Alabama.

HOTEL FOR SALE

FOR SALE—Hotel Ruffner, Charleston, West Virginia. Modern, seven-story brick hotel, 175 rooms. Government projectile and powder plants now in process of construction. Write Hall & Edmunds, Charleston, W. Va.

PROFITABLE HOTEL FOR SALE in city of 15,000. Beautifully furnished; established business. On account of owner's illness, offered at less than cost of building and lot. Some terms, but at least \$5000 cash needed. Address H. L. Lyons, Box 813, Laurel, Miss.

BUILDING LOTS

150 LOTS left in a beautiful, well-restricted and improved subdivision convenient to Bethlehem Steel Co. and other big industries adjoining the Government's new \$2,500,000 plants. Sale goes on rapidly, and 400 lots on said subdivision have been sold within about two months, the remainder being an average of \$300 each, while no land can be bought adjoining the tract. We are open for a proposition from any investor who will figure to buy all of this land. Terms satisfactory. For information address No. 5043, care Manufacturers Record.

WRITE "RIVERSIDE PLACE" about 4-acre home sites, fronting tidewater, adjoining yacht club, South's wonderful shipbuilding city. Also 15-acre subdivision; very attractive proposition. Chas. Bernard, Route A, Savannah, Ga.

ALABAMA

CHATTAHOOCHEE VALLEY STOCK FARMS in Southeast Alabama. Write Smith & Morgan, Dothan, Alabama.

FLORIDA

FLORIDA LANDS.

5000 acres very choice land for farming or hog and cattle raising, Clay County, at \$6.50 an acre.

8000 acres in Alachua County at \$3.50 an acre. 900 acres in Alachua County, perfect range for hogs, goats, sheep or cattle, at \$5.50 an acre. T. B. Hamby, 116 Heard Bldg., Jacksonville, Fla.

A BEAUTIFUL WINTER HOME, a profitable orange and grapefruit grove, a general farm, cattle, hog or poultry ranch in the famous Indian River section, Vero, Florida. The wonderful climate permits not only agricultural operations all the year, but all enjoyable life-prolonging outdoor sports. Investigate now this wonderfully charming section. Indian River Farms Company, First National Bank Building, Vero, Florida.

FOR SALE—Forty acres bearing young grove for \$17,500; terms. Should be worth \$30,000 or more in two years. For particulars, R. F. Tatum, Miami, Fla.

GEORGIA

FOR SALE—5000 acres in one body; fertile Georgia land, \$20 per acre; part cash, part terms; no exchanges. Write me for detailed description. E. C. C., 84 Mangum St., Atlanta, Ga.

FOR SALE—1023 acres good farm land on Chattahoochee River, Quitman County, Georgia, near Euftaula, Ala. Excellent for farming and stock. Price \$4000 cash and assume mortgage of \$5500. O. S. Hill, Box 763, Montgomery, Ala.

TEXAS

FOR SALE—553 acres, fronting 6200 ft. on deep water at Beaumont; fine investment as refineries, shipyards, city wharfage and Government dry docks have taken up nearly all available deep water frontage.

100,000 acres fine farming land, fine colonization proposition; covers 15 counties in Tex. and La. Kopke, Keith Bldg., Beaumont, Tex.

VIRGINIA

WE have the finest list of farms for sale ever offered in Virginia. Several on the James River, York, Nansemond, Chuckatuck and other rivers, also on Broad Bay, Linkhorn Bay, also many inland farms. Be sure and write for our list. We can suit you at any size or price. H. C. Hoggard & Co., Norfolk, Va.

400-ACRE GRAIN AND FRUIT FARM; 75 acres orchard, 50 acres of same bearing and produced in last 4 years 11,000 barrels. Near station; plenty buildings and water; land practically level; excellent orchard and farming proposition. Price, only \$33,000. R. S. Burkholder, Route 3, Staunton, Va.

VIRGINIA FARMS AND LARGE TRACTS, 640 acres on the James River, 16 miles above Newport News, nearly three miles of beautiful water frontage, 20 to 30 feet above the water; fine land. Will divide into 100 or more acre tracts if desired; \$50 an acre. H. C. Hoggard & Co., Norfolk, Va.

TECHNICAL TRAINING

TRAIN through our practical home-study course as a draftsman and promptly accept a position at a first-class salary. Tremendous demand for our graduates, who receive \$35 to \$50 a week, with chances of promotion. Big opportunity. Get particulars at once. Dept. M, Columbia School of Drafting, 10th and G Sts., Washington, D. C.

BUSINESS OPPORTUNITIES

FARMING OPPORTUNITIES AND INDUSTRIAL SITES along the Winston-Salem Southbound Ry. Co. Here climate, soil, transportation, good roads, fine schools and excellent markets contribute to the success of farming, and the large and prosperous industrial centers along our lines offer splendid locations for industries of various kinds. Address S. P. Collier, Jr., Winston-Salem, N. C.

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